DOCUMENT RESUME

ED 213 267 FL 012 811

AUTHOR	Izzo, Suzanne
TITLE	Second Language Learning: A Review of Related Studies.
INSTITUTION	InterAmerica Research Associates, Rosslyn, Va.; National Clearinghouse for Bilingual Education, Arlington, Va.
SPONS AGENCY	National Inst. of Education (ED), Washington, D.C.; Office of Bilingual Education and Minority Languages Affairs (ED), Washington, D.C.
REPORT NO	ISBN-0-89763-058-0
PUB DATE	81
CONTRACT	400-80-0040
NOTE	88p.
AVAILABLE FROM	National Clearinghouse for Bilingual Education, 1300 Wilson Boulevard, Suite B2-11, Arlington, VA 22209 ($4.00).
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Adult Learning; Contrastive Linguistics; *Educational Environment; Elementary Secondary Education; *Individual Differences; *Language Processing; *Language Research; *Learning Processes; Linguistic Theory; Psycholinguistics; *Second Language Learning; Sociolinguistics; Teaching Methods

ABSTRACT

The fact that some people learn a second language more easily than others has prompted numerous studies designed to link one factor or another with successful language learning. This work examines a large number of these studies to assess the importance of various factors involved in language learning. The influencing factors suggested are grouped into three categories: personal, situational, and linguistic factors. Considered first is the particular set of personal characteristics each individual brings to the task of learning a second language. These include general intelligence, language aptitude, attitude and motivation, psychological traits, age, socioeconomic status, and sex. The variety of learning situations is then discussed. Situational factors include the setting in which the language is learned and the amount and distribution of time devoted to it. In addition, if the language is learned formally, the method used and the characteristics of the teacher must be considered. Finally, linguistic factors are examined. These include both the differences between the first and second languages and the characteristics of the second language itself. (Author/AMH)

****

* Reproductions supplied by EDRS are the best that can be made *

* from the original document. *

****

ED215201

Second Language Learning: A Review of Related Studies

Suzanne Izzo

NATIONAL CLEARINGHOUSE FOR BILINGUAL EDUCATION

FL 012 811

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY
Nat. Clearinghouse
for Bilingual Ed.
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

This document is published by InterAmerica Research Associates, Inc., pursuant to contract NIE 400-80-0040 to operate the National Clearinghouse for Bilingual Education. The National Clearinghouse for Bilingual Education is jointly funded by the National Institute of Education and the Office of Bilingual Education and Minority Languages Affairs, U.S. Department of Education. Contractors undertaking such projects under government sponsorship are encouraged to express their judgment freely in professional and technical matters; the views expressed in this publication do not necessarily reflect the views of the sponsoring agencies.

InterAmerica Research Associates, Inc. d/b/a
National Clearinghouse for Bilingual Education
1300 Wilson Boulevard, Suite B2-11
Rosslyn, Virginia 22209
(703) 522-0710/(800) 336-4560

Cover design by Richard Shuback of Plá/Mauro Associates, Inc., Washington, D.C. Typeset by Eagle One Graphics, Inc., Lanham, Maryland.

ISBN: 0-89763-058-0
First printing 1981
Printed in USA

10 9 8 7 6 5 4 3 2 1

Contents

Foreword vii
Introduction 1
Personal Factors 3
Situational Factors 43
Linguistic Factors 63
Conclusion 69
References. 71

Foreword

Second Language Learning: A Review of Related Studies summarizes the research that has been undertaken to examine the many factors that may affect success in second language learning, and explores several possible reasons for differences or conflicts among the findings of various studies. Suzanne Izzo begins by describing the literature on cognitive and affective variables among second language learners, then examines studies of other personal factors such as age, socioeconomic status, and sex. Next, she reviews the studies of the variables in the manner and setting of second language instruction. Dr. Izzo concludes her survey of the literature with a summary of studies on the linguistic factors, both inherent in the second language and due to differences between the first and second languages, that affect second language learning. An understanding of the complex interrelationships among the many variables will enable educators to help their students transfer their communicative and cognitive skills to a second language.

Suzanne Izzo received her Ph.D. in applied linguistics from Georgetown University, where she is an instructor. She has also been an instructor in linguistics at the University of Calgary, Alberta and a lecturer in English as a foreign language at the University of Hue, Vietnam. She is co-author, with Marie Keefe, of *Speak English*, Text Four, to be published by the Institute of Modern Languages.

One of the activities of the National Clearinghouse for Bilingual Education is to publish documents addressing the specific information needs of the bilingual education community. We are pleased to add this distinguished title to our growing list of publications. Subsequent Clearinghouse products will similarly seek to contribute information and knowledge that can assist in the education of minority culture and language groups in the United States.

National Clearinghouse
for Bilingual Education

Second Language Learning: A Review of Related Studies

Introduction

Some people learn a second language more easily than others. This obvious fact has prompted numerous studies designed to link one factor or another to successful language learning.[1] The present work examines a large number of these studies in order to assess the importance of various factors involved in language learning.

The multitude of influencing factors suggested are grouped here into three categories: personal factors, situational factors, and linguistic factors. Considered first is the particular set of personal characteristics each individual brings to the task of learning a second language. These include general intelligence, language aptitude, attitude and motivation, numerous psychological traits, age, socioeconomic status, and sex. The variety of learning situations is discussed next. Situational factors include the setting in which the language is learned and the amount and distribution of time devoted to it. In addition, if the language is learned formally, rather than acquired informally, the method used and the characteristics of the teacher must be considered. Finally, while personal and situational factors have been found to be important in all types of learning, in the learning of a second language it may also be necessary to study linguistic factors. These include both the differences between the first and second languages and the characteristics of the second language itself.

---

[1] In sections where a distinction between the terms *foreign language* and *second language* is necessary, appropriate definitions will be introduced.

Personal Factors

Intelligence

Studies of factors affecting second language learning have repeatedly examined intelligence. Although the definition of intelligence is much debated in psychology, none of the studies investigating the relationship between language learning and intelligence has addressed this problem. All the studies discussed below use scores on one of a variety of intelligence tests for their measure of intelligence.

Sixteen studies investigating intelligence as a factor in second language learning are reviewed by Pimsleur, Mosberg, and Morrison (1962) and Halsall (1969). The studies used different IQ tests and different methods of assessing language learning. Except for the two studies using the Army General Classification Test as the measure of intelligence, all report significant positive correlations ranging from 0.21 to 0.65. Nevertheless, some studies raise questions concerning the influence of intelligence on language learning.

Spoerl (1939) correlated grades in advanced German courses with the Henmon-Nelson Test of Mental Abilities. In a group of thirty-eight college students he obtained a nonsignificant correlation of 0.123 for males, but a significant correlation of 0.629 for females. In a second study with a larger group, the correlations were 0.385 for males and 0.611 for females. The author concludes that there is a sex difference in the importance of intelligence in second language learning.

Bovée and Froehlich (1946) studied French students at two levels (at the end of either one or two years of study) and, in addition, two subgroups within each level (those whose French achievement scores fell into the highest or lowest 10 percent in each level). Correlations were made between scores on the Stanford-Binet Intelligence Test and on the Comparative French Test. All but one of these correlations showed a degree of relationship similar to that found between IQ scores and achievement tests in other school subjects. However, for the high-achieving first-year students the correlation was extremely low. The authors conclude that intelligence may not be a very important factor in beginning foreign language study, but that it assumes greater importance in more advanced study.

Intelligence may have more or less importance in second language learning depending on the emphasis of the course and the methods employed. However, investigations in this area have not given consistent results. Although Greenberg (1938) found that IQ scores correlated most closely with reading ability and grammatical knowledge, other early studies found high correlations between intelligence and aural comprehension and pronunciation (Halsall, 1969).

In a more recent investigation, Genesee (1976) studied children at three grade levels (fourth, seventh, and eleventh) in both French as a second language and French immersion courses. Within each grade level and type of course a sample of above average, average, and below average students were selected according to their scores on the Canadian Lorge-Thorndike Test of Intelligence. All students were given tests of French listening comprehension, reading, written language skills, and mathematics. A subsample were also interviewed individually to assess their "interpersonal communication skills." They were rated on listening comprehension, pronunciation, grammar, vocabulary, and communicativeness. All groups showed significant correlations between IQ scores and the tests of reading, written language skills, and mathematics. However, listening comprehension and the scores on the various parts of the individual interpersonal communication evaluation did not correlate significantly with IQ level. The author concludes that although academic language skills correlate with intelligence, the ability to acquire interpersonal communication skills in a second language does not.

It would seem safe to say that intelligence is a factor in second language learning. As Halsall (1969) writes: "One can hardly call this conclusion unexpected. If intelligence is defined as the capacity to learn, it should include the capacity to learn languages" (p. 19). However, intelligence is probably more important in the more academic aspects of language learning and at the more advanced stages of study. There may also be an interrelationship between sex and intelligence in language learning. Nevertheless, although it has a definite influence on second language learning, intelligence can be compensated for by other factors such as strong motivation—as is shown by the report of Angiolillo (1942) on the French acquired by a group of English-speaking mentally handicapped girls.

Aptitude

Although intelligence is generally acknowledged to be a factor in second language learning, most investigators agree that it is not of primary importance. Even with groups of similar IQ there are differences in the rates of second language learning (Carroll, 1967a). Therefore, there has been considerable research into a special aptitude for language acquisition as opposed to general intelligence. This research has attempted to identify the principal factors that determine aptitude for second language learning and has led to the production of tests to predict success in second language learning. The two language aptitude tests most often used today are the Modern Language Aptitude Test (MLAT) (Carroll and Sapon, 1959) and the Pimsleur Language Aptitude Battery (LAB) (Pimsleur, 1964).

For Carroll (1962), language aptitude consists of the following four factors: phonetic coding, grammatical sensitivity, rote memory for foreign language materials, and inductive language learning ability. All but the last of these is measured by one or more of the five subtests of the MLAT.

Pimsleur (1966) believes that aptitude for learning a second language consists of three components: verbal intelligence (both familiarity with words and the ability to reason analytically about verbal materials), auditory ability, and motivation. These are all measured in the six subparts of the LAB, which includes both linguistic measures and the student's grade point average (GPA). Pimsleur, Sundland, and McIntyre (1963) found auditory ability to be the main factor differentiating normal achievers from underachievers in second language classes. Therefore, Pimsleur (1966) considers auditory ability to be "the factor which accounts for differences in people's language learning ability which are not explainable by intelligence or interest" (p. 183).

Both the MLAT and the LAB correlate quite highly with second language achievement. The correlations are about the same if the GPA is not included in the LAB. Pimsleur (1966) states that the simple correlation for either the aptitude battery or the GPA is 0.62 while the multiple correlation for the aptitude battery plus GPA is 0.72. This compares with 0.46 which he gives for the correlation with IQ.

Gardner and Lambert (1965) used a factor analysis to investigate the relationship among intelligence, language aptitude, and second language achievement. They found that one factor was defined by the measures of intelligence (five tests from Thurstone and Thurstone's *Primary Mental Abilities* test battery), and that this factor was orthogonal to the factor defined by the measures of language aptitude (the five subtests of the MLAT). There were also four factors composed primarily of variables measuring different aspects of second language achievement. Each of these factors included one different measure of language aptitude. These results would seem to indicate that there is indeed such a thing as language aptitude separate from general intelligence, but that language learning is also composed of a number of different skills which must be measured separately by various subtests.

Although the MLAT and LAB are designed to measure aptitude for learning a second language, part of what they test is knowledge of English as a native language. One subtest of the LAB is a test of English vocabulary knowledge while in the MLAT the "words in sentences" subtest consists entirely of English, and the "spelling clues" subtest is based in part upon English vocabulary knowledge. The validity of these tests for predicting success in a second language suggests a relationship between ability in the native language and second language learning.

Feenstra (1968) found English knowledge and French achievement clustered together in a factor analysis using high school students. Pimsleur, Mosberg, and Morrison (1962) reviewed thirteen other studies which investigate the relationship between ability in the native language and success in a second language. These studies showed a positive correlation between performances in the native and second languages. However, in the studies that include more than one second language the correlations varied substantially, depending on the language being learned. It is difficult to say whether knowing their native language well helps students to learn a second language or whether some students have a general aptitude for languages and therefore learn both their own and any additional ones more easily. However, if the native language has cognates from the language being studied, a more thorough knowledge of the native language (including this learned vocabulary) will make learning the second language easier.

A related question is whether learning a second language affects achievement in studying subsequent languages. Since usually only students who have been successful in their study of a second language elect to study a third, this variable is not easily investigated. The works reviewed by Pimsleur, Mosberg, and Morrison (1962) and Carroll (1961) are inconclusive. In some studies, results vary depending on the languages studied and on the intelligence level of the students. However, no language-related differences were found by Natelson (1976), who reports on students learning a variety of languages in an intensive government language school. She found that students with prior language training performed significantly better on the MLAT aptitude test and needed fewer hours of study to reach the criterion in their target language.

The effect of knowing two languages on the learning of a third might be studied more easily with bilinguals. Lerea and Kohut (1961) found bilingual children superior to monolingual children in associating characters in an unfamiliar alphabet with the name for each character in the foreign language. Jacobsen and Imhoof (1974) report that adult learners of Japanese who have had no previous contact with Japanese but who were bilingual as children attained higher speaking proficiency in the new language than those who were monolingual as children.

Carroll (1969) points out that studying the effect that learning one new language will have on learning another is complicated by the fact that the amount of transfer between the two learning tasks may depend on the linguistic relationship between the two languages involved. Having learned Spanish might indeed help in learning Italian but not in learning Chinese. However, he concludes his discussion by writing: "My own research has suggested that prior language learning does help in predicting success in learning a new language independently of measured language aptitude" (Carroll, 1969, p. 64).

Carroll's conclusion is in agreement with the available studies on this subject. Learning a second language, whether as a child or later in life, most probably facilitates subsequent language learning.

Attitude and Motivation

While cognitive variables are contributing factors in learning a second language, it is becoming increasingly apparent that factors in the affective domain are also important. At present a great deal of research is being done to investigate the many affective variables that influence second language learning.

The variables that have been most extensively studied to date are attitude and motivation. (See the work by Lambert and his associates, especially Gardner and Lambert, 1972.) While teachers and most researchers concern themselves primarily with the students' attitudes, their perspectives are influenced by those attitudes held by parents, peers, and the community at large, to say nothing of those of the teacher. Furthermore, attitudes toward the following areas may be relevant: learning in general, second language learning in general, the particular language being studied, speakers of other languages in general, the specific group whose language is being studied, satisfaction with the native culture, satisfaction with course and teacher, and satisfaction with self.

The attitudes of the students and others around them significantly affect their orientation toward the target language. Thus, if their friends consider learning languages a waste of time, the students may be studying the language only because it is a requirement; if they are dissatisfied with their native culture, they may study a second language in order to have friends from a different cultural group which they find more congenial.

Regardless of students' orientations, they may have a higher or lower degree of motivational intensity and therefore put forth more or less effort. In addition, they may be interested only in certain aspects of the language: a student who wants to use the language for research may be interested in reading in it while a student who wants to travel abroad may be primarily interested in speaking and understanding it.

A great deal of work is being done to determine which attitudes are important in second language learning, what type of motivation promotes learning, and whether these factors remain constant in all learning situations. However, all the studies cited in this section, unless noted otherwise, assessed attitude and motivation after the subjects had already begun studying the second language. Therefore, other factors relating to the particular language learning situation may have influenced these measures. This is particularly true of the students' attitudes, where feelings toward the target language, native speakers of the language, the class, the teacher, and oneself are all interrelated and influenced by real or perceived success in learning the language.

A number of studies have considered the influence that the attitudes of others—including parents, peers, and teachers—have upon the achievement of the student of a second language. Studies by Feenstra (1969) and Gardner (1968) included measurements of parental attitudes toward speakers of the second language. They found that the students' attitudes reflected those of their parents. Parents who held positive attitudes toward French Canadians (the second language group) not only developed similar attitudes in their children but, understandably, gave them more encouragement in their language study; these children were in fact more skilled in the second language.

Parental attitude has also been found to play an important part in the learning of Welsh by English-speaking children in the primary schools in Wales (Stern, 1967). English-speaking children whose parents do not wish them to learn Welsh but who must attend Welsh-medium schools because no English-medium schools are available often develop an emotional attitude that prevents them from learning the language. In contrast, English-speaking children whose parents place them in Welsh-medium schools because they wish them to receive a bilingual education achieve good results in the second language.

While parental influence is more direct in the case of children, attitudes formed in the home as a child may persist as an adult. This would apply not only to attitudes toward a particular language group but also to other parental attitudes which may later influence language learning. These might include attitudes toward speakers of other languages in general, toward both specific languages and language in general, and toward learning itself. Discussing adult language learning, Larson and Smalley write:

> A little-understood factor which has a great deal to do with a learner's language aptitude is his psychological reaction to childhood language trauma. It is very possible for an individual to be emotionally disturbed over language problems and to reject new languages because of them. (Larson and Smalley, 1972, p. 19)

They recount the case of an adult student who would physically gag when trying to pronounce the sounds of the language she was trying to learn. Her father had had a beautiful reading style of which he was very proud, and the student could not bring herself to produce the foreign sounds which she felt were not acceptable by her father's standards.

Attitudes of their peers or of the community in general can place pressure on students, influencing their language learning. Both these influences are discussed by Gardner (1968) in the case of American Indian children learning English at various grade levels. Increases in peer pressure to avoid using English and the presence of cultural barriers against English acquisition are mirrored by decreases in student motivation. A citation from Stevick clearly illustrates the influence of the attitudes of peers:

> One of my daughters, doing rather well in eighth-grade French, explained to me that she *could* have spoken French so it would sound like the voices on the tape, but she didn't want to sound unacceptable to her classmates. (Stevick, 1976, p. 52)

Much educational research has shown that the attitudes held by the teacher have considerable influence on a student's achievement. This applies to all subjects, including languages. Savignon (1976) writes about the importance of the teacher's attitude toward language per se as well as toward the language taught; these influence the teacher's attitudes toward the students and ultimately their language learning. Extensive research on teaching primary French in Britain finds a close association between the students' achievement in French (as well as their attitude toward the language) and the attitudes toward learning French held by their teachers and the principal of the school (Burstall, 1975).

While research has shown that a student's learning is influenced by the attitudes of many of the people with whom he or she comes in contact, attitudinal research in second language learning has focused primarily on the attitudes of the student and how these influence achievement in the second language.

Much of the earliest research attempted to assess the students' interest in the language being studied. Positive correlation has been found between achievement in a second language and expressed interest in the language. (See the studies reviewed by Pimsleur, Mosberg, and Morrison, 1962.) In laboratory experiments giving monetary rewards, intrinsic interest in the language has been found not to be important (Lorge, 1939; Dunkel, 1948).

However, in the usual classroom situation interest in the language affects the amount of effort expended, which affects the amount of learning. While the earlier studies were primarily concerned with the students' interest in the language being studied, a recent Canadian study (Gardner et al., 1976) has found positive correlations ranging from 0.16 to 0.37 between interest in languages in general and achievement in French as a second language.

Brown (1973) discusses the importance to second language learning of certain egocentric factors such as self-knowledge, self-esteem, and self-confidence. Certainly people's feelings and beliefs about themselves must influence their learning a second language. Brown reports on an unpublished study (Lederer, 1973) which found "that the 'self-concept' of Detroit high school students was an overwhelming indicator of success in a foreign language" (p. 234).

A positive self-concept may be part of a positive attitude toward the native language group in general. Two studies of non-English-speaking students learning English at the university level found that students who performed better on a language proficiency test rated both themselves and members of their native language group higher on various desirable traits (Oller, Baca, and Vigil, 1977; Oller, Hudson, and Liu, 1977).

On the other hand, a different relationship between language proficiency and attitudes toward members of the native language group is found in the Lambert studies. These included an adaptation of Srole's anomie scale (Srole, 1951) and an instrument measuring preference for the United States over France in order to determine the students' satisfaction with their own society and their place in it. Students who were more advanced in the study of a second language showed a greater degree of anomie. However, the investigators do not believe that a high degree of anomie leads to better learning of a second language, but rather that the feeling of anomie develops as a student becomes more proficient in a second language (Lambert et al., 1963).

A great deal of recent work, following the lead of Lambert and his associates, has focused on the attitude of second language learners toward native speakers of the target language. However, more than twenty years ago, Nida (1956-57) wrote about the person who lacks "sensitivity to the out-group" (i.e., the speakers of the second language). Such people may acquire considerable fluency, but continue to "butcher the language," apparently because they do not care what the speakers of the second language may think of their performance.

The work of Lambert and his associates has been based on the expectation that learning a second language is dependent on

> the learner's perceptions of the other ethnolinguistic group involved, his attitudes towards representatives of that group, and his willingness to identify enough to adopt distinctive aspects of behavior, linguistic and nonlinguistic, that characterize that other group. (Gardner and Lambert, 1972, p. 132)

In their studies of second language learning, Lambert and his colleagues have used a number of direct measures to attempt to assess a student's attitude toward speakers of the second language. For example, the test given the English-speaking U.S. students learning French contained a "Preference for America over France Scale" and a "French-American Attitude Scale." The students were asked to indicate their opinion concerning the statements in each section on a six-point scale from "strong agreement" to "strong opposition." Sample statements were, "Family life is more important to Americans than it is to people in France," and "French-Americans contribute to the richness of our society." Students were also asked to indicate their impressions of a number of people on twenty-three, seven-point evaluation scales, such as interesting-boring, kind-cruel, permissive-strict. The categories rated were French People from France; Me; Americans; Me, as I'd Like to Be; French-Americans; and My French Teacher.

A more indirect measure of the students' attitudes toward French speakers was obtained by means of the matched-guise technique. Four bilingual speakers of American English and either European French or American French recorded the same passage in each of their languages. The students heard what they thought were eight different voices reading in either English or one of two styles of French. They were asked to rate each speaker's personality and appearance on nineteen seven-point scales such as leadership, honesty, and ambition. The comparison of the personality traits assigned to a given speaker using the two languages indicated the stereotypes the students had of speakers of a given language.

In addition to measuring the attitudes of students toward speakers of the particular language which they are studying, Lambert's research has included measures of the students' attitudes toward speakers of other languages in general. The primary instrument used is a modification of the E-Scale of Adorno et al. (1950), which is designed to measure ethnocentrism and suspicion of people and ideas from other cultures. In addition, a modification of the California F-Scale (Adorno et al., 1950) has been used. This is a measure of authoritarian ideologies and may also reflect a generalized prejudice against speakers of other languages. In the Lambert studies, high ratings on ethnocentrism and authoritarianism generally were associated with poor language performance (see Gardner and Lambert, 1972).

Ethnocentrism may actually involve students' rejection of their own background. Nida (1957-58) reports the case of a U.S. missionary who, contrary to all expectations, failed to learn the language of the area to which he was assigned. Nida explains that the missionary's parents had been immigrants to the United States who had never succeeded in mastering English, and as a boy the missionary had dissociated himself from his parents' culture and language in order to identify with the English-speaking community. Even as an adult his emotional reaction to the ethnic difference of his parents prevented him from learning another language.

Motivation in second language study can have two aspects: orientation (students' reasons for studying the language) and intensity (the degree of effort they put forth). The work by Lambert, Gardner, and others has shown a relationship between attitudinal and motivational variables, and these researchers believe that students' attitudes toward the other social group influence their orientation toward learning the second language.

Lambert et al. (1968) suggest that there are three types of orientation: (1) instrumental, which reflects the utilitarian value of knowing the language; (2) integrative, which reflects the desire to know more about the foreign cultural group through knowledge of its language; and (3) manipulative, which reflects the desire to learn the language in order to enter the other cultural group to gain personal power within it. Only the first two of these have been studied systematically.

Lambert and his colleagues measured students' orientations directly by means of a questionnaire which asked how important certain typical reasons for studying the language were for them personally. The investigators identified these reasons as either instrumental or integrative, and classified each student on the basis of his or her answers as having predominantly instrumental or integrative orientation.

Spolsky (1969) used both direct and indirect methods to assess the orientation of foreign students studying in the United States. For the direct assessment the students rated the importance to them of fourteen possible reasons for their coming to the United States. For the indirect assessment the students rated how well each of thirty adjectives described: (1) themselves, (2) the way they would like to be, (3) speakers of their native language, and (4) native speakers of English. Correlations of these ratings showed whether students wished to be more like speakers of their native language or more like speakers of English. Those with greater desire to be like speakers of English were considered to have integrative orientation. Only 20 percent of the students were classed as having integrative orientation using the direct questionnaire while 33 percent were so classed using the indirect questionnaire. Spolsky suggests that when questioned directly soon after leaving their own country, students are reluctant to admit to motives that imply that they wish to become part of another culture. He considers the indirect questionnaire a more sensitive instrument which is less affected by student inhibition. Oller, Hudson, and Liu (1977) also found that an indirect questionnaire of the type Spolsky used produced a more meaningful interpretation than a direct questionnaire based on Lambert's and Gardner's work.

In their first studies in Canada, Lambert and his associates discovered that the successful language students were more likely to hold a positive view of the group whose language they were studying and to have an integrative orientation. Whyte and Holmberg (1956) report a similar situation in the case of U.S. workers in Latin America. They found that workers of Italian extraction who did not know Italian often learned Spanish quickly because they considered themselves Latins and thus identified with the Latin Americans. In their investigation all the cases of U.S. workers who had learned Spanish well showed

> this phenomenon of psychological identification. For such individuals, learning Spanish was not only a means to an end—better job performance and more rapid advancement. These people had also developed a sympathetic interest in Latin America and Latin Americans. (Whyte and Holmberg, 1956, p. 13)

Spolsky (1969) found that students who desired to be more like speakers of English than speakers of their native language scored significantly higher on a test of English proficiency. A similar relationship is reported by Jacobsen and Imhoof (1974) in their study of missionaries in Japan. They found that those who adjusted most easily to Japanese culture also were more proficient in spoken Japanese.

A number of studies show significant positive correlations between success in second language study and attitudes toward speakers of the second language and an integrative orientation. However, according to recent work, the situation is considerably more complicated than originally thought and additional factors are involved.

In some countries, learning a second language may have important consequences educationally and professionally within the context of the native culture. Thus, in the Philippines Gardner and Lambert (1972) found that an instrumental orientation was even more important than an integrative orientation for developing proficiency in English.

Lukmani (1972) tested Marathi-speaking students in India and again found that instrumental orientation correlated significantly with English proficiency. Her subjects rated the reasons for learning English which could be classified as integrative as being important if these reasons were related only to modernity and a higher standard of living, and as unimportant if they actually involved contact or assimilation with English-speaking Indians.

Pride (1971) writes about situations where another language is integrated into the learner's culture and where "a basic need is precisely that of expressing one's own culture linguistically through means other than one's own native language" (p. 23). In situations where a second language is required for advancement within the native community it is apparently not necessary (or perhaps even desirable) to identify with the cultural group that speaks that language natively. Realizing the value of the language within one's own culture (an instrumental orientation) is important for acquiring proficiency.

A further difficulty in studying orientation toward a second language is that there is no clear method for determining the type of orientation reflected by a particular reason for studying the second language. What appear to be identical reasons for learning a second language may be interpreted differently in different cultural situations. Lukmani (1972), in her study of English learners in India, found that certain reasons that she had classified as integrative were perhaps not perceived as such by her subjects. These reasons were

> rated fairly high because [they] do not imply rejecting the Marathi group characteristics or identifying with the English group. These only indicate a desire to become better and more complete human beings. (Lukmani, 1972, p. 271)

Anisfeld and Lambert (1961), in their study of variables affecting the study of Hebrew by Jewish students, found that certain instrumental reasons needed to be reinterpreted within that particular cultural situation as integrative reasons:

> Wanting to get a job requiring knowledge of Hebrew (an instrumental reason for studying Hebrew) actually means becoming a rabbi, a Hebrew teacher, or engaging in other Jewish professions which involve more participation in the Jewish culture and community than the more idealistic and vague purposes of becoming "more a part of the Jewish culture" (an integrative reason).(Anisfeld and Lambert, 1961, p. 528)

Some scholars argue against "the dichotomous treatment of all language learning motivation" (Teitelbaum, Edwards, and Hudson, 1975, p. 257). Thus Pride writes:

> There seems little doubt that the socio-linguist interested in language learning motivation had best be interested in the *detailed* aspirations of the language user, rather than in anything so neat as precisely two types of motivation. (Pride, 1971, p. 22)

There may indeed be certain personal reasons for studying a language which are not easily classified as integrative or instrumental. One may study a second language out of interest in languages in general, or because one gains satisfaction from mastering a difficult subject, or because it seems an enjoyable way to pass the time.

In addition, there seems to be a variation in degree among reasons that may all be classified as either integrative or instrumental. Lukmani (1972) asked Marathi-speaking Indians to indicate on a five-point scale the importance of five instrumental and five integrative reasons for learning English. The three reasons that were rated as having the highest importance for the group were instrumental, but the reasons ranking fourth and fifth were integrative (neither of these implied identification with English-speaking Indians). Although the other three integrative reasons were rated as having the least importance, two of these (friendliness with those in touch with the West and with English-speaking Indians) were rated considerably higher than the third (ability to think and behave like English-speaking Indians). There may be a whole range of "integrativeness," and any given reason may not be simply integrative but rather more or less integrative, depending on where it falls within the range.

With languages spoken natively by more than one cultural group, deciding which group is to be considered as the reference presents a further difficulty in determining integrative orientation. Some of Lambert's studies had questions referring both to Franco Americans (and American French) and French people from France (and European French). Most studies have used as the reference group the speakers of the second language who are resident in the community (e.g., French Canadians, English-speaking Indians, Chicanos). However, students might reject identification with a group speaking another language in their own community and yet feel able to identify with a group speaking that language but living in another country. Teitelbaum, Edwards, and Hudson (1975), in an investigation carried out in New Mexico, found that a positive orientation toward the local Chicano community had a negative correlation with Spanish proficiency. They suggest that the model motivating the successful students is not the local Chicano population but the more "prestigious" Spanish-speaking people of Spain or Latin America.

In addition to a student's orientation, another important factor in learning a second language is motivational intensity, the amount of time and effort a learner is willing to devote to the study of a language.

Politzer (1960) found that there was a positive correlation between the number of hours spent in a voluntary language laboratory and the performance on course examinations. This contrasted with the amount of time spent doing the obligatory homework where the correlation with course grades was curvilinear, with "A" students doing the least work and "C" students doing the most.

The Gardner-Lambert studies have included a measure of motivational intensity that assesses the amount of work the student does outside of class, both in home study and in using the language in the community. They have found that a high degree of motivational intensity is related to achievement in the second language and to integrative orientation. Thus students who have positive attitudes toward the second language group and wish to learn the language in order to communicate with this group report that they work hard outside class to learn the language and do in fact receive high grades in their language classes.

Gardner et al. (1976) investigated whether integratively oriented students were more active inside as well as outside the classroom. Canadian high school students of French who had completed an attitude/motivation questionnaire were observed in the second language classroom. Integratively oriented students volunteered to answer questions more often than nonintegratively oriented students, and they gave more correct answers to questions. A second study showed the same results, and in addition, the observers rated integratively oriented students as showing more interest in the language class.

It appears that motivational orientation and intensity combine to influence achievement in second language learning. The type of orientation may affect participation in class and the amount of nonclass time spent on the language.

Gardner et al. (1976) suggest that the importance of the attitudinal/motivational factor is dependent on the social situation in which second language learning takes place. If everyone in the culture is expected to learn a second language, then language aptitude may be more important in determining relative achievement of students. If second language proficiency is not the usual case, then motivational differences assume more importance. Where the target language is learned in informal contexts (outside the classroom), motivation may be of primary importance since it will determine whether or not the students avail themselves of the opportunity to use the language. The study reported in Gardner et al. (1976) further suggests that motivation is more important than aptitude in the early stages of second language learning. At more advanced levels this situation is reversed although motivation continues to be an important factor.

In addition, attitude and motivation have been found to be important predictors of who will continue the study of a second language and therefore acquire greater proficiency. Bartley (1970) studied a large number of eighth graders who were later divided into two groups based on whether or not they continued the study of a second language in the ninth grade. She found that the attitude toward the second language of the dropout group was significantly lower than that of the continuing group. Moreover, although the attitude of the continuing group remained stable throughout the year, that of the dropout group deteriorated significantly from September to March.

Later studies by Gardner et al. (1976) and by Clément, Smythe, and Gardner (1978) present a similar picture. They used three scales (attitudes toward learning French, motivational intensity, and desire to learn French) to form an overall measure of motivation. For all grade levels motivation was found to have the highest correlation with intention to continue or drop the second language.

Unlike IQ and language aptitude, which are considered to be relatively stable throughout life, attitude and the accompanying motivation are learned behavior and consequently can be changed. It is this possibility for change, coupled with the mounting evidence for its importance in second language learning, that makes the attitudinal/motivational factor of such interest to language teachers.

Alatis (1976) points out that students may, as the result of their language study, change their orientation from instrumental to integrative. Several studies have found that children who have had exposure to a second language have more positive attitudes toward other languages and people of other cultures (Hancock, 1972b).

While more positive attitudes may result from simple exposure to another language, Bartley's study (1970) shows that this is not necessarily the case, and that indeed the negative attitude of some students may be increased by the language class. Therefore, much work is being directed toward finding instructional methods which can foster positive attitudes and increased motivation in students in the hope that this will increase achievement in the second language.

Since students' attitudes toward speakers of the second language are seen as influencing motivation and ultimately achievement, one approach might be to improve attitudes toward the second language group. One traditional method of achieving this has been to teach various aspects of the other culture in the classroom. Many articles and books offer practical suggestions for this approach, as well as the warning not to present the other culture as merely quaint, thus increasing the students' ethnocentrism instead of broadening their appreciation of the group (Hancock, 1972b).

Another method which has come into use more recently is based on work in social psychology. Numerous studies have shown that greater contact with another group results in more favorable attitudes toward that group (Triandis and Vassiliou, 1967; Hofman and Zak, 1969). A number of Canadian schools sponsor programs that attempt to increase Anglophone students' motivation to learn French by bringing them in closer contact with French Canadian students. In Eastern Canada there are student exchanges between French and English schools where, for a certain number of days a month, a group of English-speaking students who have been studying French attend class in the French school while an equal number of French-speaking students take their places in the English school. For students living at great distances from Quebec there are short-term exchange programs. For example, in Edmonton an exchange program was begun for eleventh graders. The Edmonton students invited a student from Quebec to live with them for a week, then they visited Quebec for a week (Gardner et al., 1976). A number of other Canadian plans involve the Anglophone students' taking a brief trip to Quebec.

Although programs designed to promote second language learning through greater contact with members of the second language community are increasingly popular, several studies of student participation in such programs have found nonsignificant or even negative effects on student attitude (Clément, Gardner, and Smythe, 1977). Differences in student attitude after participation in bicultural programs are dependent on both quantitative and qualitative aspects of the interaction with the second language group, and these in turn may be influenced by attitudes held prior to participation in the program.

The importance of the amount of interaction with the second language group was investigated by Clément, Gardner, and Smythe (1977) in their study of eighth-grade Anglophone students participating in an excursion to Quebec City. The students were divided into a high-contact and a low-contact group on the basis of their reported frequency of interaction with

French Canadians in French. There was also a control group which did not participate in the excursion. The high-contact group was found to have had more favorable attitudes toward the second language community and its language before the trip than the other two groups. It also showed the greatest increase in favorable attitudes after the trip, although the attitudes toward the second language group became more favorable for both groups participating in the excursion. However, while the high-contact group also showed an increase in desire to learn French, the low-contact group had a less positive attitude toward learning the language than before. In fact, although the only significant difference between the low-contact and control groups before the trip was the more positive attitude toward French and greater desire to learn the language on the part of the students choosing to participate in the excursion, after the trip the low-contact students had lower scores on these measures than the control students.

Clément, Gardner, and Smythe concluded that attitude change produced by closer contact between two groups may be limited to specific effects (in this case attitudes toward members of the second language group) without being transferred to related attitudes (such as desire to learn the other group's language). They suggest that

> moderately positive attitudes towards the other community, or unrealistic expectations about the ability to communicate with that group, may be factors which influence the Low Contact group to decrease their attitude and motivation to learn French after the excursion. Such possibilities suggest that awareness of the motivations and expectations with which the individual enters such situations is essential to the understanding of the impact of contact on attitudes only indirectly related to the other group. (Clément, Gardner, and Smythe, 1977, p. 213)

Qualitative aspects of the contact situation are beginning to be explored in more detail to discover how these aspects of the interaction between members of two cultural groups affect their change in attitude. Gardner et al. (1976) mention a study where students were asked to keep a diary recording their daily impressions and feelings while on a bicultural excursion. The quotations from the diary of one of the students record stages progressing from anxiety over attempts to use French to elation at being able to communicate in the second language. This would seem to parallel the stages of culture shock often experienced by people who go to live in a different culture (Smalley, 1963). It may be that even short periods of exposure to another culture produce a form of culture shock that may cause negative attitudes in some students or that may serve to reinforce their previously held negative attitudes. Further study needs to be done of more specific details of the interactions that take place in bicultural situations to find how qualitative aspects of the contact interact with previously held attitudes and thus influence attitude change.

Since the teacher's attitudes influence the attitudes of the students, another possible way of changing the students' attitudes is by modifying those of the teacher. Savignon (1976) suggests that, for language teaching to reflect real needs there must first be an exploration of the attitudes and motivations of language teachers in relation to other teachers, their students, and the language they teach. She appends to her article the Foreign Language Attitude Survey (De García, Reynolds, and Savignon, 1976), which has been used in teacher workshops to explore attitudes held by teachers. In the course of these discussions it is possible to examine the validity of some of these attitudes and open the way for the eventual change of negative attitudes.

Hancock (1972a) has proposed the use of simulation in the training of language teachers. By means of a series of problem-solving exercises, teacher trainees learn to identify problems relating to student attitude and motivation and to devise strategies for dealing with these problems.

Several of the new methods being proposed for language teaching (e.g., The Silent Way, Counseling Learning) emphasize the importance of the teacher's understanding and acceptance of the students' emotional reactions to the language and class. By understanding the students' negative attitudes the teacher is able to modify them and nullify their detrimental effect on the learning situation. Much recent writing on language teaching proposes that the students' attitudes are perhaps the determining factor in their success in a second language. Nonetheless, the teacher's attitudes toward individual students and the language class as a whole can modify the feelings which the students bring with them and thereby allow them to learn to the greatest extent of their capabilities.

It should be mentioned, however, that the direct influence of attitude on language learning has been called into question in some recent studies. Chihara and Oller (1978) found only weak correlations between attitude measures and second language proficiency in a group of Japanese students studying English in Japan. In their conclusion the researchers attempt to explain their results by referring to a personal letter from Gardner in which he expresses his belief that student attitudes

> are probably only indirectly related to language learning. He [Gardner] believes they may be directly related to motivations to learn which in their turn have a direct effect on the learning of a second or foreign language. However, as he points out, attitudes toward self and others (whether the native language group or the target language group) or toward any particular learning task are not all that affect motivations to learn. Neither are the motivations of the learner (even if they could be exhaustively known) the whole of what goes into success in learning language. (Chihara and Oller, 1978, pp. 67-68)

Chihara and Oller also suggest that the weak correlations obtained between attitude and language proficiency may be due to the inadequacy of the instruments used to measure attitude. This possibility is further explored by Oller and Perkins (1978), who suggest that there are a number of extraneous, nonrandom sources of variance in self-reported attitude measures that cause unpredictable patterns of correlation with language proficiency measures. (See also the reply to Oller and Perkins by Upshur et al., 1978.)

Personality Traits and Other Psychological Factors

A language student's attitude and motivation make up a part of what Schumann calls "psychological distance" (Schumann, 1976b). When a student does poorly in a second language it is often because of psychological factors. Some of these, such as resisting learning another language because of the rejection of the background of one's parents, have already been discussed.

Because language and manner of speaking are an essential and distinctive part of one's being, learning a new language produces a fundamental change which can be seen as a rejection of one's true nature and cultural allegiance. However, learning the language imperfectly precludes merging with the different culture and therefore allows one to maintain one's own identity. Thus, Larson and Smalley write:

> Learning a language in Paris is fine so long as there is no danger of one's being identified as a Parisian, a good, strong American accent serving as insurance that nobody will mistake one for being anything else than an American. (Larson and Smalley, 1972, p. 4)

It is even possible to reject the second language completely. Nida (1971) writes of an Aztec Indian woman who had lived extensively in a Spanish setting apparently without ever acquiring Spanish for either comprehension or production. However, when she was drunk she spoke very good Spanish. Nida explains the discrepancy by noting that "she was obviously basically resentful of the Spanish-speaking society and hence in self-defense refused to identify with this society to the extent of conscious control of the language" (Nida, 1971, p. 61).

The fear of losing one's identity by learning a second language may be minimized in the student who has positive attitudes toward the speakers of the second language and an integrative orientation. In terms of psychological distance, such a student desires maximum proximity and this will in fact facilitate learning the second language, as has been seen earlier.

Guiora and his associates, working within a psychological framework, have attempted to relate willingness to give up separate identity to ability in pronouncing a second language. They have developed the concept of "language ego," which is "conceived as a maturation concept and refers to a self-representation with physical outlines and firm boundaries" (Guiora, Brannon, and Dull, 1972, p. 112). They believe that pronunciation is that part of language which is the most salient feature of an individual's identity and that differences in the ability to acquire correct pronunciation in a second language depend on the amount of flexibility in the boundaries of an individual's "language ego." They have conceptualized this flexibility as an empathetic capacity which is defined as "a process of comprehending in which a temporary fusion of self-object boundaries . . . permits an immediate emotional apprehension of the affective experience of another" (Guiora, Lane, and Bosworth, 1968, p. 263).

Guiora and his colleagues assume that "the more sensitive an individual is to the feelings and behaviours of another person, the more likely he is to perceive and recognize subtleties and unique aspects of the second language and incorporate them in speaking" (Taylor et al., 1971, p. 147). While this seems plausible, it is not clear that the tests used are valid measures of empathy. In one study (Taylor et al., 1971) where three different measures of empathy were used, they had low or negative correlations with each other. In addition, in the same study the major empathy measure had a negative correlation with the pronunciation measure, although this was explained as being due to anxiety. If empathy is an important factor, the question remains whether its influence is confined to pronunciation or extends to all facets of language.

Rubin (1975) observes that one characteristic of "good" second language learners is that they are not inhibited. This was explored in a further study by Guiora and his associates (Guiora et al., 1975). They equated the inflexibility of language ego boundaries with inhibition and attempted to study its influence on second language pronunciation. Their experiment used alcohol to artificially reduce inhibition. They found that subjects who were given small amounts of alcohol performed better on a language pronunciation test than those who had had no alcohol; subjects who had been given larger amounts of alcohol had the worst performance. While better performance on the pronunciation test may indeed be due to a reduction in inhibition, Brown (1973) suggests that reduced muscular tension induced by the alcohol may also have been a factor. It is not clear whether reduced inhibition would improve performance in all areas of language. Scores on the Digit Symbol Test, a subtest of the Wechsler Adult Intelligence Test, decreased with the amount of alcohol ingested, suggesting that overall ability in language use might suffer with lowered inhibition.

In a similar experiment, Schumann, Holroyd, and Campbell (1978) attempted to use hypnosis to improve pronunciation of a foreign language. They suggest that better pronunciation might result because of the general relaxed condition obtained under hypnosis and the psychological dissociation which allows the subject to give up personal identity. When the twenty subjects were considered as a group, the differences between their normal waking pronunciation and their pronunciation under hypnosis were nonsignificant. However, when the group was divided by means of the subjects' own evaluation of the depth of their trance, there was significantly more improvement in the pronunciation of deeply hypnotized subjects than in that of less deeply hypnotized subjects. This was not the case when the subjects were divided by means of their scores on the Stanford Scale of Hypnotic Susceptibility. The authors recommend that their study be considered only suggestive since there were no subjects with low hypnotic susceptibility in the sample.

Since language is the main vehicle for communicating both ideas and feelings to others, second language learners are often frustrated in this essential human need. The inability to communicate results in a loss of self-esteem. This "language shock" is discussed by Smalley (1963) and Schumann (1975). Adult second language learners are reduced to the position of children unable to demonstrate intelligence, originality, or wit. Instead, they feel a sense of shame because of their insufficiencies. They have problems finding the correct way to express what they wish to say and are haunted by the fear that the words of the second language may not convey their intended meaning. Adult second language learners know they are making mistakes and feel that they are the objects of ridicule. In addition, students are often shocked to realize that although they usually do well in academic work and may even be already established in their professions, they are having a great deal of trouble with the second language—perhaps more trouble than other students who seem less able. Thus they feel humiliated at not being able to perform as well as they think they should.

The various factors that cause "psychological distance"

> put the learner in a situation where he is largely cut off from target language input and/or does not attend to it when it is available. The language which is acquired under these conditions will be used simply for denotative referential communication in situations where contact with speakers of the target language is either absolutely necessary or unavoidable. The learner's psychological distance will prevent him from identifying with the speakers of the target language such that he will not attempt to incorporate into his speech those linguistic features that would help to identify him as a member of the TL [target language] group. Hence, his use of the target language will be functionally restricted. (Schumann, 1976b, p. 402)

Stauble (1978) studied the use of English negatives by three Spanish speakers who had lived in the United States for over ten years. One of the subjects, Xavier, had a great deal of contact with Anglo Americans and English, both at work and in his neighborhood. However, he did not feel at ease in Anglo society nor did he evidence any desire to become part of that society or to improve his command of English. He had the lowest linguistic development of the three subjects. The other two subjects, who had less actual contact with Anglo Americans, had progressed further in their linguistic development. Since they identified themselves more closely with the English-speaking society, they apparently were able to profit more from their smaller amount of exposure to the language. Only psychological and social factors were considered in this study, and the small sample makes the results only suggestive at best. However, for these three second language learners, psychological distance seems to have been a greater influence on second language proficiency than social distance.

It has long been noted that there are important connections between a person's use of language and his or her personality (cf. Sanford, 1942). If this is so, students' personalities might influence their language learning, especially of a second language. Although there are serious difficulties in the definition and assessment of personality factors, a number of studies have attempted to explore this important area.

One factor that is often mentioned by teachers as adversely affecting language study is anxiety. Its influence has been studied by language researchers.

Gardner et al. (1976) report significant negative correlations between French classroom anxiety and achievement in French. Gardner et al. (1974) found that it was only anxiety in relation to French that affected French learning, since measures of general classroom anxiety and audience anxiety did not show significant correlations with the measures of achievement (reported in Schumann, 1975, p. 218).

A study by Chastain (1975) that included test anxiety as a variable gave inconclusive results. Although there was a significant correlation between test anxiety and course grade in the French audiolingual class (but not in the regular French class) and in the Spanish and German classes, the correlation was negative for the French class and positive for the Spanish and German classes. Chastain (1975, p. 160) suggests that "perhaps some concern about a test is a plus while too much anxiety can produce negative results." In addition, the relationship between anxiety and learning has been found to be influenced by the student's intelligence, stage of learning, and the difficulty of the task (Scovel, 1978).

Certainly part of the anxiety felt in any situation where one must use an imperfectly learned foreign language is that of making a fool of oneself. This is equally true whether one is in a second language classroom or in a culturally different community.

In addition, second language learners are anxious about making mistakes in front of others. In the extreme case this results in what Stevick has called "lathophobic aphasia: an unwillingness to speak for fear of making a mistake" (Alatis, 1976, p. 266). Nida (1957-58) suggests that extreme fear of errors may sometimes result from the students' having learned the prestige dialect of their native language as a second dialect. In such a situation the commission of errors in language reveals the learner's original lower status and is therefore avoided at all costs. He cites the case of a missionary with such a background who was assigned to a mission in Africa. In spite of dedicated and enthusiastic study of the grammar of the language of the area, he refused to speak it, saying always that he would as soon as he knew the grammar and was sure he would not make a mistake. His fear of making a revealing mistake in English did not allow him to try to use another language where mistakes would be inevitable. He eventually resigned from the mission rather than face that possibility.

Curran's work has emphasized the role anxiety and inhibition play in learning a second language (Curran, 1972, 1976). His method of Counseling-Learning attempts to facilitate learning by reducing these conflicts. Curran, however, concentrates on the anxiety aroused by having to admit ignorance and needing to depend on someone else for information and knowledge. Stevick (1973a) adds that there are other important forms of anxiety: the fear that one is not progressing as quickly as one should (or as others are) and the suspicion that one is wasting time because the course is not really appropriate for one's needs.

Another personality trait which has been investigated in connection with language learning is extroversion. Rubin (1975) points out that the good language learner has a strong motivation to communicate. This is especially important in the classroom, which is an artificial setting where use of the second language is not vital for the students. In this situation, those who seem to feel a special need to communicate will use the language more and become more proficient. Since it is generally thought that a student with an extrovert personality has a greater desire to communicate, it seems to follow that such a student will be a better second language learner.

Chastain (1975) included in his study of university second language students the Marlowe-Crowne Scale of Reserved versus Outgoing Personality (Crowne and Marlowe, 1964). Correlations with final course grades were positive for students of the three languages tested (French, Spanish, and German) but were significant only for Spanish and German. The use of course grades as the language criterion raises the question of whether a student with an outgoing personality actually is a better language learner or whether teachers prefer this type of student and reflect this in giving grades.

Another study using grades as a criterion presented negative evidence for better language learning by extroverted students. Smart, Elton, and Burnett (1970) divided a group of university French students into overachievers, average achievers, and underachievers. The composition of the groups was based on a comparison of the grade predicted by a linear regression analysis using American College Test aptitude scores and high school grades as predictor variables, and the grade actually received in the course. The investigators found that overachievers scored lower on the Social Extroversion Scale of the Omnibus Personality Inventory (Heist and Yonge, 1968) than underachievers or average achievers.

Brown (1973) questions whether the extroverted student is actually more proficient in a second language. He suggests that if such a relationship seems to hold, it may be because of the present emphasis on speaking in the classroom. He feels that investigations should be made to ascertain whether extroversion is an asset for all facets of language or only for speaking.

Even more basic questions are raised by Nida (1956-57), who points out that it is a mistake to equate either extroversion or talkativeness with motivation to communicate. A talkative person may be interested in showing off rather than in having an exchange of ideas. Nida writes:

> If the desire to communicate is to be a sufficient motivation for mastering a language, it must be a composite urge both "to receive" and "to send."... Those whose attention is concentrated in the sending function are likely to be badly maladjusted and, for various reasons, not likely to succeed too well in the learning of a foreign language. (Nida, 1956-57, p. 13)

Nida further observes that the classification of extrovert/introvert may in itself be misleading since a person may be an extrovert in one culture and language but an introvert when seen in another culture.

The personality trait of sociability was investigated by Pritchard (1952). He studied the relationship between sociability with other students and spoken fluency in French in a group of boys in a British secondary school. Fluency measured only the amount of "understandable French [spoken] in answer to a number of simple questions, pronunciation and grammar errors being disregarded" (Pritchard, 1952, p. 147). High positive correlations were found between sociability and fluency. However, it might be questioned whether fluency, as measured in this study, adequately reflected knowledge of the second language.

Other personality traits have been studied in relation to second language learning. Generally, they have been found to have low correlations with language achievement (e.g., "need for achievement" in Gardner et al., 1976), or to vary greatly in their correlation scores depending on other factors (e.g., "creativity" in Chastain, 1975).

In some studies, however, it is precisely the interaction of personality factors that is of primary interest. A series of Canadian studies investigated the possible interaction between three types of language programs (early immersion, late immersion, and French as a second language—FSL) and various personality traits (Tucker, Hamayan, and Genesee, 1976; Hamayan, Genesee, and Tucker, 1977; Genesee, 1978). Conformity was found to be positively related to achievement in FSL classes but not in immersion classes. The investigators suggest that this could be because of the use of formal grammar training in the FSL classes. Adventuresomeness had a much stronger relation to achievement in the FSL classes than in the immersion classes. This trait was associated with attempting to use French in the community, which apparently had more influence on the French of those students who had limited exposure to the language during school.

A factor related to personality traits is cognitive style. Styles of learning, which are influenced by both personal and cultural factors, are receiving considerable attention. (A selected bibliography of works on language styles and strategies can be found in *ERIC/CLL News Bulletin*, June 1979.)

Brown (1973) mentions four different cognitive styles that might have an effect on second language learning. One of these is the tendency toward reflectivity or impulsivity. Studies with children have found that reflective students make fewer reading errors and are more successful in inductive reasoning (Kagan, 1965; Kagan, Pearson, and Welch 1966). Brown also reports on an unpublished study by Doron (1973) who worked with university students of English as a second language. She found that reflective students read more slowly but with greater accuracy.

Omaggio (1978) suggests that the successful second language student is willing to risk making a mistake in order to try to communicate. That there exists a difference in learners in their willingness to take risks is shown in a study of adult second language learners by Madden et al. (1978). They compared the relationship between no response on a sentence repetition task and the number of correct responses. They found that some students could be considered guessers who were willing to attempt a repetition even though they were rarely successful. Other students appeared to adopt a strategy of avoidance and would not attempt a repetition unless they felt the chance of success was high.

Kleinmann (1978) studied avoidance strategies in groups of second language learners from two different language backgrounds. Four different language structures were elicited. Comparisons between the two groups showed that the percentage of correct answers for each structure investigated was nearly the same regardless of language background. However, there was a significant difference between language groups in the number of times each desired structure was elicited; structures that were not used in the speakers' native language were produced less often than those that had analogous forms in the native language (cf. Schachter, 1974). Kleinmann also correlated individual avoidance of each structure with measures on tests of anxiety and desire for success. The use of structures that were generally avoided by the students' language group had a significant positive correlation with the measure of facilitating anxiety (anxiety which the students felt helped their performance in the second language).

Kleinmann found no significant correlations between amount of use of a structure and the correctness of its use. (This would also seem to be the case in Madden et al., 1978.) In learning a second language it is obviously not enough just to be willing to try. Both Omaggio (1978) and Rubin (1975) stress that good language learners are not only willing guessers but accurate ones, also. They use all the available clues effectively and are therefore able to make inferences which are largely correct. The strategy of successful guessing is also discussed by Wong Fillmore (1976) in her study of child learners of a second language.

Rubin (1975) finds that good language learners are constantly monitoring their speech and that of others in order to improve their own performance. This concept of monitoring has been further developed by Krashen (1976, 1978b). He presents the view that adults are able to learn a second language both through informal exposure ("acquisition") and through formal tutelage ("learning"). He writes:

> Adult learners "supplement" their (usually) imperfectly acquired competence by means of consciously learned linguistic knowledge in a definite way: Conscious linguistic knowledge acts only as a "monitor," altering the output of the acquired system when time and conditions permit. This "intrusion" generally

> takes place at some stage prior to the actual utterance. Second language performers with highly developed monitors are thus able to out-perform their acquired competence when conditions allow this conscious knowledge to intrude (e.g., when sufficient processing time is available or when not distracted). (Krashen, 1976, p. 163)

There is, however, considerable variation in the use of the "monitor" by second language learners, and some of this variation reflects different personalities. Krashen (1978a) describes successful monitor users as those who have a concern for correct language, but who edit their language output only when it does not interfere with communication. This results in variable performance depending on the amount of time available for monitoring. Monitor overusers, on the other hand, are reluctant to use the second language unless they have sufficient time to apply all their consciously learned rules. As a result, they can often write the language quite accurately but speak very little and with much hesitation. Krashen finds that overusers tend to be self-conscious and introverted. Monitor underusers often say that they consider grammar rules to be important, but that they rarely use rules, relying more on "feel." Underusers are usually outgoing, eager to communicate, and not embarrassed by their mistakes. These differences in the use of the monitor would appear to be related to the guessing and avoidance strategies discussed above.

Although successful language learners are able to make well-reasoned guesses, they are not troubled by uncertainty and are willing to tolerate a certain amount of ambiguity. Naiman et al. (1978) report that the more proficient second language learners are those who are able to cope with novelty, complexity, or insolubility in whatever task they are given. In this study, tolerance of ambiguity was a significant predictor of success on the language proficiency tests only for the eighth-grade group; the tenth- and twelfth-grade students were significantly more tolerant of ambiguity than the eighth-grade students. It appears that those who have difficulty coping with the ambiguity present in the second language class drop the language as soon as possible.

An aspect of cognitive style which is related to tolerance of ambiguity is belief congruence and contradiction and the associated notions of dogmatism and closed-mindedness (Brown, 1973). Ausubel (1968) notes that on tests of verbal ability open-minded people have been found to score higher than their closed-minded counterparts. More specifically in second language learning, Lambert and his associates found that ethnocentrism and authoritarianism were linked with a lower level of performance than that achieved by students with more tolerant attitudes (see above, p. 12).

Categorization behavior, narrow or broad, is mentioned by Brown (1973) as another area of cognitive style where people differ. Omaggio (1978) states, "Studies suggest that the good language learner is neither a broad nor a narrow categorizer, but rather adopts a 'middle-of-the-road' position in analyzing and categorizing linguistic data" (p. 2). She goes on to say that categorization errors made by good students tend to be the result of overgeneralizing within the target language, since these students develop the second language as a self-contained system separate from the system of their native language. She states that "successful learners actively attempt to develop the target language into a separate reference system and try to think in the target language as soon as possible" (Omaggio, 1978, p. 2). This, however, contrasts with the findings of Lambert et al. (1963) in a study of North American university students in an intensive French course. They found that students permitted the semantic features of the two languages to interact and that this interaction of the two linguistic systems correlated positively with achievement.

Field independence is another characteristic that has been found to be related to success in a second language. In the study by Tucker, Hamayan, and Genesee (1976) field independence formed part of a variable that was found to be a significant predictor of achievement on a standardized paper-and-pencil test of general French proficiency. In the study by Naiman et al. (1978) the field independent learners were more successful on the listening comprehension test and the sentence repetition task. They were more selective in what they omitted when repeating sentences and were less distracted by the immediate environment. It was found, however, that field independence was a better predictor of success at a later stage of language learning than at earlier stages.

A number of other facets of cognitive style have been discussed in the literature, although the evidence is lacking that would relate differences in these areas to success in second language learning. Brown (1973) discusses the difference between individuals who "skeletonize" or "embroider" in the recall of cognitive material. He suggests that some judgments of language proficiency might be biased in favor of "embroiderers" because of the larger quantity of language they produce. Hatch (1974) identifies two types of "learning personality": rule formers and data gatherers. She says that rule formers have well-developed stages in their language acquisition whereas data gatherers do not. Madden et al. (1978) report that the second language learners in their study could be divided into two groups based on the type of auxiliary substitution made in their learning of English *wh-* questions. From the differences in the substitutions, the investigators hypothesize that one group was focusing on the syntax and the other, on the meaning.

Rubin (1975) and Omaggio (1978) discuss several related facets of the cognitive style characteristic of good second language learners. Good second language students take an active approach to the learning task rather than rely solely on the teacher. They seek out opportunities to practice the language and attend to both form and meaning. In addition, the researchers suggest that successful learners have insight into their own learning styles and are able to vary learning strategies according to differences in the task or situation.

Naiman et al. (1978) conducted interviews with thirty-four highly proficient second language learners in an attempt to identify characteristics of such learners. In addition to the traits and strategies discussed above, they found that proficient language learners have an awareness of language as a system, which enables them to use effectively comparisons with their native language or other languages they know and to use linguistic clues as a basis for inferences about the new language. They also are especially concerned with language as a means of communication and interaction. This causes them to seek out situations that allow them to communicate with native speakers and makes them sensitive to sociocultural meanings.

Age

Age has long been considered an important variable in second language learning. The drive to include second language instruction in the elementary schools made this a critical question in language research, and the age factor continues to be widely discussed.

It has been generally thought that children can learn a second language more quickly and easily than adults. This belief seems to be based on two observations: (1) children usually acquire excellent pronunciation in a second language whereas even adults who know the second language very well often have obviously nonnative pronunciation; and (2) in families who move to an environment where a second language is spoken, the children learn to use the second language more quickly than the adults. While these two observations may be correct, the situation is so complicated by other factors that they do not constitute sufficient grounds for asserting that age is the critical factor and that the younger the person, the more easily he or she learns a second language.

The proponents of early second language instruction have often backed their position with a physiological reason. The statements by Penfield are the most often quoted to support the assertion that there is a critical age after which the ability to learn a new language decreases. He writes:

> Before the age of nine to twelve, a child is a specialist in learning to speak . . . for the purposes of learning languages, the human brain becomes progressively stiff and rigid after the age of nine! . . . The brain of the adult, however effective it may be in other directions, is usually inferior to that of the child as far as language is concerned. (Penfield and Roberts, 1959, pp. 203-4)

Lenneberg (1967) presents similar conclusions based on work with aphasics and the mentally handicapped. Although the work they refer to is in the area of first language acquisition, both Penfield and Lenneberg specifically extend their conclusions to second language acquisition.

The hypothesis of a critical age for language learning has often been linked to lateralization (cerebral dominance of a particular hemisphere of the brain for special functions). Since the last century it has been held that the left hemisphere is dominant for language in the majority of people (see Dingwall and Whitaker, 1974).

Lenneberg believed that left hemisphere dominance for language becomes permanently established at puberty, and he found this to be correlated with the age at which accents appear in learning a second language. Scovel (1969) reiterates the belief that permanent lateralization at puberty is directly linked to successful second language learning. He specifically limits the relation to pronunciation in the second language since he admits that adults can master the syntactic patterns of a second language. He suggests that this is because "sound patterns are produced by actual motor activity and are thus directly initiated by neurophysical mechanisms [while] lexical and syntactic patterns lack any such 'neurophysical reality' " (Scovel, 1969, p. 252).

The conclusion that lateralization is permanently established only at puberty has, however, been called into question. On the basis of a reexamination of Lenneberg's data and additional data from other aphasia studies, Krashen (1973) concludes that lateralization is completed well before puberty, probably around the age of five. Ingram (1975) has found evidence for lateralization in children from three to five. In another study, Molfese, Freeman, and Palermo (1975) found that for infants under one year (as well as for children and adults) the responses to nonspeech stimuli were larger in the right hemisphere. They conclude that "different areas of the brain are apparently pre-programmed to differentiate between certain types of stimuli very early in life, perhaps at or before birth" (Molfese, Freeman, and Palermo, 1975, p. 365). If it is true that some lateralization is present at birth and that the process is completed at an early age, it would seem impossible to link lateralization with differences in second language learning by children and adults.

Brown and Jaffe (1975, p. 107) believe from their study of age-dependent aphasia that "cerebral dominance is a continuous process which evolves throughout life." Albert and Obler (1978, p. 254) present a similar view. They write: "The brain is a plastic, dynamic organ which continues to change throughout life as environmental (e.g., educational) stimuli impinge upon it." The results of a number of neurolinguistic studies lead Albert and Obler to hypothesize that the right hemisphere plays the major role in the beginning stages of second language learning in both children and adults. With increasing fluency in the second language the left hemisphere contributes more to the learning process and there is greater left hemisphere lateralization for the new language. However, cerebral dominance for a bilingual is dependent on a number of situational and linguistic factors in addition to age of acquisition. Dominance may be different for the two languages of a bilingual and is subject to change as a result of environmental influences. If both hemispheres are involved in language learning at all ages, and if dominance for language can change during a person's lifetime and is dependent on factors other than age, then lateralization cannot explain differences in the learning of a second language by children and adults.

Taylor (1978) presents the theory that there is a series of critical periods for language acquisition which are tied to neurological maturation in the brain. Up to the age of six children learn most phonetics, simple syntax, and concrete semantics; between seven and nine they master more subtle phonetics and more complex syntax; between ten and fourteen children master the rest of syntax and continue to learn abstract semantics. Taylor suggests that this series of critical periods for first language acquisition is also applicable to second language acquisition. He writes: "In each of the critical periods, the brain is ready—mature yet plastic—for the acquisition of a particular component of language" (Taylor, 1978, p. 468).

Seliger (1978) also discusses the theory of a series of critical periods based on maturation of the brain. He refers to Brown and Jaffe (1975), who present the hypothesis that lateralization is a continuing process of specialization and that even after language functions in general are lateralized to the left hemisphere, further localization of specific functions continues.

> Because localization does not take place at once, but affects different aspects of language at different periods of life, one would expect a different timetable to evolve in terms of different language abilities. That is, there would be many critical periods, successive and perhaps overlapping, lasting probably throughout one's lifetime, each closing off different acquisition abilities.
>
> This may explain why phonology is acquirable beyond the age five cutoff for lateralization but not much beyond the onset of puberty in most cases, and why other aspects of the language system, at least in some form, are acquirable throughout most of life. (Seliger, 1978, p. 16)

While the main maturational arguments for a critical age (or ages) for language acquisition have been neurological, Rosansky (1975) proposes a cognitive argument based on the Piagetian stages of intellectual development. One of the cognitive changes brought about by the onset of the stage of "formal operations" is the ability to attend to differences, in addition to the earlier awareness of similarities. Rosansky suggests that this new consciousness of differences may be responsible for the difficulties experienced by adult second language learners and that the stage of "formal operations" marks the end of the critical period for language acquisition.

Although neurological and cognitive explanations continue to be advanced, the facts of second language learning do not completely support the hypothesis of a "critical period." In order to demonstrate the existence of a critical period, the behavior in question must (at least) be acquired most efficiently during that period. Several studies have provided evidence that, in fact, older learners are more efficient at learning a second language, and it is felt that the greater cognitive maturity of the adult is an advantage in language learning, as it is in other learning (Ausubel, 1964; Taylor, 1974).

Most studies dealing with the influence of age have compared second language achievement in children of differing ages. Ervin-Tripp (1974) studied thirty-one English-speaking children learning French in Geneva. Their ages ranged from four to nine. She tested the children on phonology, morphology, and syntax and found that in each of the three areas the older children learned faster.

Other studies where there was a wider age range have found similar results. Politzer and Weiss (1969) studied children in first through ninth grades. They used tests of auditory discrimination, pronunciation, and vocabulary recall. Performance on all tests improved with age. In a later study, Ramírez and Politzer (1978) tested children ranging from kindergarten through high school on tests of grammatical comprehension and production. The oldest group (junior and senior high school students) was found to have learned more in the same amount of time than the younger children.

Eckstrand (1964, 1975) studied both native Swedish children learning English and immigrant children learning Swedish. In both groups the older children performed significantly better on the evaluation tests than the younger ones (reported in Hatch, 1977).

Another large-scale experiment involving Swedish children learning English was conducted by Gorosch and Axelsson (1964). They found that eleven-year-olds learned faster and more accurately than seven-year-olds. This advantage held for both pronunciation and understanding (reported in Stern, 1967).

Florander and Jansen (1969) studied over 300 Danish children to evaluate differences in beginning the study of English in the fourth, fifth, or sixth grades. All students were tested twice: after 80 hours of instruction and after 320 hours of instruction. On both tests the sixth-graders performed significantly better than the younger groups although differences were not as great on the second test (reported in Hatch, 1977).

The largest study of children learning a second language in school was conducted in Britain with a total of 17,000 children learning French (Stern, Burstall, and Harley, 1975). The children who began French at eight years (the experimental group) were compared on their French achievement with children beginning at eleven years (the control group). One comparison was made when both groups reached the age of sixteen (but having studied French for different lengths of time). In this comparison the early beginners were superior only in listening comprehension. The other comparison was made after both groups had studied French for five years (but were different ages). From this, the researchers conclude that given the same amount of time for learning a second language, older students are more successful than younger ones.

The Canadian bilingual education studies would seem to contradict the findings that there is no advantage to beginning the study of a second language early since students in early immersion classes always perform better than those in late immersion classes (Hamayan, Genesee, and Tucker, 1977). However, since the length of time devoted to the second language is radically different in the two programs (in addition to the basic nature of the programs) it is impossible to attribute the difference to age.

Snow and Hoefnagel-Höhle (1978), in their study of English speakers learning Dutch in the Netherlands, included not only children ranging in age from four to fifteen, but also a group of adults. In the tests dealing with morphology and syntax there was a large difference in performance attributable to age, with the older learners being significantly faster at learning those aspects of language than the younger ones. In the tests reflecting control of the phonology the older learners performed better, but the differences were slight and generally nonsignificant. Although in general the older learners learned faster than the younger ones, the adults had lower scores on all tests than the teenagers (but higher than the other three groups of preteen children).

Similar, but more extreme, differences between the learning of grammar and pronunciation were shown in a study by Fathman (1975) of 200 children ranging in age from six to fifteen. She found that the older children scored higher on the morphology and syntax subtests but that the younger children performed better on the phonology.

Since pronunciation is the aspect of language mentioned most often by advocates of early second language instruction, it is not surprising that a number of studies have concentrated on this variable. The research methods have varied considerably and so have the results.

Several investigators have studied immigrants, correlating ratings of their pronunciation with age of arrival in their adopted country. Asher and García (1969) studied Cuban children from seven to nineteen years old in the United States, and Oyama (1976) tested Italian teenagers and young adults who had immigrated to the United States at from six to twenty years of age. Age of arrival in the United States was the most important variable in both studies, with the younger subjects being judged as having more native-like pronunciation than the older ones. Seliger, Krashen, and Ladefoged (1975) conducted a survey of 394 adult immigrants to the United States and Israel. These came from a variety of backgrounds and were asked whether they thought ordinary U.S. residents (or Israelis) considered them native speakers of English (or Hebrew). The subjects were divided into three groups based on age of arrival in their adopted country—nine or younger, ten to fifteen, sixteen or older. There was a significant difference in self-reported pronunciation ability from group to group, with more of the group who had arrived at nine or younger considering themselves to be indistinguishable from a native speaker of their second language.

However, while studies of immigrants point to better acquisition of pronunciation by younger learners, other studies concerning the learning of pronunciation in a second language have presented more varied results.

Dunkel and Pillet (1956, 1957, 1959) found that third- and fourth-grade U.S. children studying French attained better pronunciation than those who began the language in the fifth or sixth grade. The third-graders did not perform better than the fourth-graders, however. Kirch (1956) taught German to first-, third-, and sixth-graders and found that pronunciation accuracy was inversely related to age; the first-graders were the best of the three groups, but even the sixth-graders were better than university students. Larew (1961) had slightly different results in a study testing Spanish pronunciation in the second through sixth grades and the ninth grade. In her investigation the correlation of pronunciation scores with age was curvilinear: the seven-year-olds performed the best but were followed by the fourteen-year-olds and then the eleven-year-olds.

Olson and Samuels (1973) tested the German pronunciation of students in three age groups: elementary (nine and ten), junior high (fourteen and fifteen), and college (eighteen to twenty-six). They found that the junior high and college students were significantly superior in pronunciation to the elementary students; there was no significant difference between the two older groups. Grinder, Otomo, and Toyota (1961) found that pronunciation accuracy of Japanese increased directly with age for U.S. children in the second, third, and fourth grades (reported in Olson and Samuels, 1973). As was mentioned earlier, Politzer and Weiss (1969) and Ervin-Tripp (1974) also found that accuracy of pronunciation increased with age.

It appears from the research to date that older learners are able to acquire the morphology and syntax of a second language more rapidly and more accurately than younger learners. The only exception to this is a study by Ramsey and Wright (1974) of 1,111 immigrant children, where scores on a six-part test of English were negatively related to age of arrival in Canada. On the other hand, the effect of age on the acquisition of pronunciation is not at all clear. A considerable amount of research has been conducted in this area but with conflicting results.[2]

Krashen, Long, and Scarcella (1979), on the basis of their review of the literature, present the generalization that older learners proceed more quickly through the early stages of acquiring the morphology and syntax of a second language, but those who are exposed to the second language during childhood reach a higher proficiency than those who begin their learning as adults. Since older learners have greater experience and cognitive maturity, it does not seem surprising that they are able to acquire a second language at a faster pace (Ervin-Tripp, 1974, p. 122). There are, however, other differences between second language learning by adults and by children which favor the younger learners. It may be that these situational advantages enjoyed by child learners allow them, in the long run, to acquire a degree of mastery in a second language closer to that of native speakers even though their beginning rate of learning is slower.

The social environments in which children and adults learn a second language often differ radically. Snow and Hoefnagel-Höhle (1978) discuss this difference as a possible explanation of their findings that older children learned Dutch faster than younger ones, and adults learned more slowly than the oldest group of children (teenagers) but faster than all younger groups.

---

[2] Darlene Howard (personal communication) suggests that the results of studies showing older learners to be better second language learners may be due to the fact that test taking is itself a skill which is acquired with age. Although most of the tests used were specifically designed to be administered to children, it is certainly true that the younger children would have had less experience with any form of testing than the older children or adults. Snow and Hoefnagel-Höhle (1978) report that some of the younger children in their study refused to attempt certain of their tests. On the other hand, studies using a large variety of different types of tests (including some, like Asher and Price's [1967] physical response, which appear better suited to children than to adults) all obtained similar results. This would seem to indicate that the findings are valid and that older learners do indeed progress more quickly in the learning of a second language.

> The pattern of results obtained in this study could then be explained as a result of increasingly appropriate second language learning environments as the children get older. . . . Kindergarten children whom we tested and observed seemed to be able to function fairly well in the school situation without any specific linguistic interaction with either classmates or teacher, whereas most of the teenagers were attending quite demanding high schools and required a fair command of Dutch in order to keep up with their studies. . . . The adults were quite varied in their contacts, but it was probably the case that none of the adults encountered very many situations in which knowledge of Dutch was absolutely crucial to effective communication. (Snow and Hoefnagel-Höhle, 1978, pp. 343-4)

In addition to having more need for the second language in school activities, older children have more exposure to the language in their social contacts and correspondingly fewer opportunities to use their first language. Their social network is generally composed of children who speak only the second language; therefore they need to acquire the new language in order to communicate with their peers. Thus, they are highly motivated to learn as quickly as possible. With adults the situation is often reversed. They have many friends from their native language background and often must use their first language in their work. They have not only less need to learn the second language but also less time and opportunity to use it.

Seliger, Krashen, and Ladefoged (1975) and Olson and Samuels (1973) discuss insufficient contact with the second language as a factor in poor language learning. Olson and Samuels write:

> Immigrant adults tend to associate more with peers who speak their native language than children. . . . Often immigrant families have tended to settle in areas where there are other families of similar origin. These adult peers reinforce poor second language pronunciation habits. Similarly, the contacts which these adults would have with good pronunciation models are limited. Children, on the other hand, would be more apt to come in contact with teachers and native-speaking classmates, who have a good accent to model. Thus, it is more probable that children would have a closer approximation to native-like pronunciation because they are surrounded by good models more of the time than are their adult counterparts. (Olson and Samuels, 1973, p. 267)

While this lack of native models in general applies largely to adults, Seliger, Krashen, and Ladefoged (1975) feel it may explain the cases of unsuccessful language learning by immigrant children. In their study, only a few immigrants who had arrived in their adopted country before the age of ten felt that they had an accent in the second language. The authors suggest that these learners may have lived in an environment where there was insufficient second language input and that they, therefore, learned a nonnative local variety of the language. They mention the case of Nisei whose English would be judged as nonnative presumably because they were raised in a Japanese environment. In contrast to the small numbers of immigrants who arrived before ten who felt they retained an accent, the group who arrived between ten and fifteen was about evenly split between those who thought they had no accent in the second language and those who thought they did. However, language input was still an important factor since there was a significant difference between these two subgroups with regard to how many of their closest friends spoke the same native language as they. The group who thought they had an accent had more friends of the first language background and therefore presumably spent less time in situations where the second language was used.

In addition to a difference in the amount of stimulus received from native speakers by children and adults, it has often been suggested that the type of stimulus differs. Asher and Price (1967) offer the hypothesis that children learn a second language more easily because they couple it with play activity while the adults attempt to learn the language divorced from physical behavior. Asher and Price compared the learning of children aged eight, ten, or fourteen, and college-age adults. They were taught four series of commands in another language by having the instructor physically demonstrate the meaning of each utterance as it was heard. In the retention tests following the teaching sessions, the learners demonstrated their understanding of the oral command being tested by acting out the request. On all the tests (ranging from one-word commands to longer, more complex ones), the adults were vastly superior in listening comprehension to the children; the eight-year-olds were the poorest.

In addition to being accompanied by motion, language directed to children is often simplified, which may make the language learning task easier. Hatch (1977), however, presents evidence that simplification is also used when speaking to nonnative adults, so that language stimulus may not differ in this respect as much as has been thought.

Even if types of directed language are similar, Butterworth and Hatch (1978) suggest that adults are expected to use the language they are acquiring to discuss a larger variety of ideas, many of them more abstract than the topics children talk about. This expectation places a greater burden on adults' capacity in the second language and may lead to frustration and withdrawal from the learning situation.

In addition to differences in the learning situation of children and adults, much has been written about the psychological differences between the two age groups. Most of the psychological problems discussed in the preceding section do not affect the young second language learner. Children must of necessity depend on others and therefore do not feel threatened by the dependent relationship required in language learning. Since they are still in the process of developing, children are not threatened by the changes involved in language learning. They are less likely to have negative attitudes toward the second language group and therefore can identify freely with their friends who speak the new language—including speaking their language. Furthermore, children seem to be less self-conscious than adults; they are willing to try using the second language without the anxiety that adults have of making mistakes and looking foolish.

Nevertheless, Hatch (1977, 1978) cites diary studies of child second language acquisition which show that children, too, often feel threatened by a new language and try to avoid situations where they must use it. The chief difference is that children, being under the control of adults, are not allowed to escape from the language learning task whereas adults have greater opportunity to control their environment.

It is often said that children exposed to a second language in a natural setting will inevitably learn that language without need of any formal teaching. However, in Young's study (1974) one child showed no learning of English after eight months in a U.S. kindergarten. When she finally began to speak, her language was comparable to that of the other nonnative children at the beginning of their speaking. Contrary to the expectation that this child might be using extended listening as her learning strategy, she apparently was not learning during the first eight months of exposure to the second language. There may be considerably more individual variation in children's abilities to acquire a second language than has been thought.

Variation in language learning ability within an age group may also be linked to different cultural expectations. Not all societies share our belief that adults are poor second language learners. Hill (1970) gives examples of other cultures where the learning of new languages by adults is normal and indeed expected. This raises the possibility that adults may do poorly in second language learning because of social expectations that they are too old to succeed in acquiring competence in the new language.

The influence of age on second language learning is receiving a great deal of attention by researchers. There are discussions of differences attributable to being younger or older and various arguments both for and against a critical period for language learning. (See McLaughlin, 1977 for a review of the literature.) For the present, however, the conclusion of Stern and Weinrib (1977, p. 16) seems most reasonable: "It is probably best to assume that no overall optimal age, operative for all conditions and all aspects of language learning, can be conclusively determined." Second language learning is possible at any stage in a person's life and there are advantages and disadvantages for each age. Other factors appear to be more important than age in determining success in a second language.

Socioeconomic Status

There has been little work done on the effects of socioeconomic status (SES) on learning a second language. Although several studies do compare the native language ability of children of different socioeconomic levels, these studies present conflicting results. Some researchers report that children of low SES are linguistically retarded, while others report no differences due to SES or even that low SES children are more advanced linguistically (Saville-Troike, 1976, p. 17). There may be several reasons for these differences, ranging from cultural bias in the tests to the fact that different researchers have looked at different aspects of language.

Socioeconomic status has been found to be an important factor in school achievement in general (Hawkins, 1972). It is usually accepted that low SES can result in an unfavorable self-image on the part of the student and a negative attitude and low expectations on the part of the teacher.

The general effects of SES on school learning can be expected to apply also to second language learning in the schools. In fact, the British Primary French Project found a direct correlation between SES and second language proficiency. The researchers evaluated French achievement of students who were attending three different types of British secondary schools which, in effect, drew their students from three different socioeconomic strata. The differences in SES of the students was paralleled by significant differences in their French achievement, with higher SES correlating positively with higher levels of achievement.

Several attitudinal factors may have contributed to the British result. Hawkins (1972, p. 326) points out that where second language study is optional, if "the low-status student experiences a resigned acceptance of inferior status, it is unlikely that he will be attracted into a program around which a tradition of elitism has developed." Where language study is obligatory, as in the British project, feelings of inferiority and low aspirations can be expected to produce lower levels of achievement. Parental attitudes, which have been shown to be an important factor in second language learning, will also favor the higher SES student. Higher SES parents encourage positive motivation on the part of their children since language study is seen as having value for the student's future plans. Because of their different goals, this positive motivation for language study is not shared by lower SES students and, in fact, the British investigation found that lower SES students and their parents felt that language study was not relevant to future occupational prospects. This was reflected in less favorable attitudes toward the language and a greater proportion of students dropping language study when they reached the grade where it was no longer required.

In addition to fostering more positive attitudes toward the second language, families of higher SES status are better able to provide out-of-school opportunities for further language exposure, such as language camps or travel abroad. The British Primary French Project found not only that students who visited France had higher achievement in French, but also that this group contained a disproportionate number of students from the higher socioeconomic classes (Burstall, 1975).

In contrast to the results of the British research, there are two studies that indicate that perhaps SES does not influence language learning in the schools. Edwards (1976) found that SES made little difference in achievement in a sixty-minute-a-day French program. Carroll (in comments on Edwards, 1976) cites evidence from a series of studies on school achievement in eight countries. These studies investigated achievement in several school subjects including French as a second language. In contrast to findings for the other subjects, achievement in French was not found to correlate with SES.

While most studies that consider SES as a variable have been conducted within the school setting, effects attributable to SES may also occur when second language learning takes place outside the school. Schumann (1976a) has written about the influence that differences in status (which can be social and economic) have upon second language learning. Differences in status will result in social distance, and with little contact between the two language groups there will be little language learning. Socioeconomic differences may also produce resentment and misunderstanding of the other language group. This psychological distance will not allow the learner to identify with the other language group or its language and will result in minimum learning. If the dominant group requires that its language be taught in school, these psychological factors will also influence language learning in the school setting.

At present, work on the influence of SES on second language achievement is scanty and sometimes contradictory. There is need for more studies correlating SES with second language learning both in and out of school.

Sex

A number of studies of second language learning have included sex as one of the variables. Some have found no significant differences between the sexes. For example, Brière (1978) found that sex had no effect on achievement test scores of native Mexican children studying Spanish. Other studies have found differences on language-related measures but not on the actual measures of second language proficiency. Thus, the Ottawa-Carlton Project, which studied French immersion programs, concluded that

> the overall findings related to the school achievement and language skills favour the interpretation of no significant differences between the sexes, although girls are somewhat more verbal, somewhat different in personality characteristics, and are rated more positively by their teachers. (Stern et al., 1976, p. 80)

A number of other studies have found significant differences between the sexes with females generally scoring higher than males. The British

Primary French Project (Burstall, 1975) found that girls scored significantly higher on all tests measuring achievement in French. They also had a more favorable attitude toward learning French, which can be explained, at least in part, by the fact that the girls and their parents considered second language learning to have vocational value whereas the boys and their parents did not. Although, in general, the studies by Gardner and Lambert (1972) of U.S. high school students learning French did not find a relationship between sex and French achievement, their Louisiana study found girls to be better in comprehending complex French discussions and to have a larger French vocabulary. In addition, they had a more favorable attitude toward French American speakers. The Pennsylvania Foreign Language Project (Smith, 1970), which studied the teaching of French and German in a large number of high schools, found highly significant differences by sex. Girls had a more positive attitude toward second language study before beginning their language course. They also scored consistently higher on all of the achievement tests given at the end of the course. Because of these differences, one of the recommendations of the project was that "separate norms should be reported for males and females on standardized modern foreign-language achievement tests" (Smith, 1970, p. 167). At the university level, Scherer and Wertheimer (1964) found that women were consistently better on all tests of German language achievement although the differences reached the significance level on only two of the six tests. They too found that the level of motivation was significantly higher for women. While these studies find women to be superior to men in at least some aspects of language achievement, in all of them it is possible that attitude and motivation account for the differences.

Chastain (1970b), in a study of Spanish students at the university level, reports that the women did better on tests of written skills while the men did better on tests of oral skills. However, none of the differences was statistically significant. Carroll's study (1967b) of college seniors found no difference in proficiency between the sexes. Carroll did not measure motivation, and although Chastain did so, he does not give the correlation between motivation and sex.

Female students receive better grades in second language classes, especially in high school (Carroll, 1961). This may be due in part to attitudinal and motivational factors but it is also probably dependent on other factors that influence grades and that tend to favor girls at the elementary and secondary levels. The Gardner and Lambert study (1972) of high school French students in Maine, which showed girls receiving higher French grades, also found that they had higher scores on motivation and desire to do well in French. In addition, they had greater sensitivity to the feelings of others and a more favorable attitude toward their French teacher.

Women have also received higher scores on the Modern Language Aptitude Test (Carroll, 1961; Scherer and Wertheimer, 1964; Smith, 1970).

This may reflect cultural expectations for the two sexes. In the Scherer and Wertheimer study, which also included the verbal and mathematical sections of the College Board Scholastic Aptitude Test, the women scored higher on the verbal portion and the men scored higher on the mathematical portion. While this may mean that women's performances are indeed superior on tests involving language and those of men are superior in mathematics, it seems equally likely that the findings reflect the expectations of U.S. society that mathematics and science are more appropriate for men and literature and languages are more fitting for women. (See Brière, 1978, p. 170 for a similar explanation for the reported "superiority of females in verbal ability in the United States.")

Even if it is found that there is no absolute difference in language ability between the sexes, it is possible that second language learning may be different for each sex because of an interaction between sex and various situational variables. Very little work has been done in this area. Chastain (1970b), who compared an audiolingual method with a cognitive one, found only one difference attributable to sex: men achieved better oral skills using the audiolingual method whereas women did better in oral work using the cognitive approach. However, not only was this difference not significant but, in addition, it appeared only in the tests given at the end of the second year (tests were also given at the end of the first year). There was no difference attributable to an interaction between sex and method for the other language skills. A Swedish project that investigated the teaching of certain English grammatical structures using three different methods found no interaction between sex and method (Levin, 1972).

The few studies that consider sex as a variable in second language learning are all concerned with research in a school setting. While several have found an advantage for females, this can probably be better explained by other differences that were found between the sexes. Some, but not all, of these differences might carry over into language learning in a natural setting, but the influence of sex in such situations has not been investigated.

Situational Factors

People learn their first language at home and in the community without benefit of any formal instruction. There is considerably more variation in the manner and setting in which they learn subsequent languages. They may acquire additional languages in the same way as the first language or they may learn a second language formally in a class or through self-directed study. Learners are influenced by the setting in which they learn a language and by the people with whom they have contact while they are learning it. These situational variables influence their feelings toward the language and the extent to which they become proficient in it.

Method

The situational variable that has been most widely discussed is that of teaching method. Schumann (1978b) believes that difference in method has little effect on language teaching. Regardless of the method used, he feels that "we will achieve equally unsatisfactory results in the long run because language learning is not a matter of method, but is a matter of acculturation" (p. 47). While desire for acculturation has been shown to influence second language learning, it seems rash to consider it to be the only factor of importance. Languages can be learned in the classroom and the teaching method used does influence learning. An interesting aspect of second language research concerns the relationship between differences in method and other variables in the total learning environment.

There are many methods being used for teaching languages with new ones constantly being introduced. Mackey (1965, p. 157), in his discussion of what constitutes a method, states: "All language-teaching methods, by their nature, are necessarily made up of a certain selection, gradation, presentation, and repetition of the material." Most methods do not differ from each other on all these dimensions. More often, a "new" method is advanced in order to emphasize a certain aspect of language or to propose a novel manner of presentation.

The majority of the articles written about teaching methods describe a relatively new method and tell how it can be used in the classroom (e.g., Winitz and Reeds, 1973; Mignault, 1978). Often, rather than giving a general description of its use, the author explains how the method is used at a particular institution and presents the (good) results that have been obtained (e.g., Begin, 1971; Asher, 1972). Occasionally there are articles attacking particular methods. These usually discuss theoretical, or sometimes practical, objections to the method (e.g., Ausubel, 1964; Brown, 1977). There are also general works that describe a number of different methods, sometimes comparing them on particular points (e.g., Diller, 1975; Mackey, 1965).

In addition to descriptive works, there are a number of experimental studies that attempt to compare results obtained by using different teaching methods. However, it is extremely difficult to control adequately the large number of interacting factors present in a classroom setting. As a result, single variable studies are often set up as laboratory experiments, where the language learning objectives are limited but control of variables is possible. Carroll (1961) warns, however, that such experiments may use procedures so dissimilar to those used in actual classroom teaching that application of the results is difficult.

A number of studies have attempted to compare two or more methods in actual classroom use. Several of these have been discussed by Carroll (1961), Lange (1968), and Levin (1972). Inherent in research conducted in the classroom is the problem of an overwhelming number of variables, and many of the studies reviewed were seriously lacking in adequate controls. A further problem lies in the concept of "method" itself. As mentioned earlier, methods do not usually differ on all dimensions. In addition, what is designated as a particular method will not be applied in exactly the same way by different teachers at different times. However, to be used as an independent variable in a true comparative experiment, each teaching procedure should be completely independent of the others and homogeneous within itself (Siegel and Siegel, 1967).

Because of these problems, it is sometimes considered more desirable to carry out smaller studies dealing with specific teaching strategies. In their limited scope, these may resemble laboratory experiments. However, since they are based on actual work in the classroom, such smaller studies are more likely to provide information that is directly applicable to a teacher's decisions concerning procedures to use in teaching. Lange (1968) reviews a number of small-scale investigations of such specific questions as whether the grammatical explanation should come before the drill, after part of the drill, after the entire drill, or should not be given at all (Politzer, 1968). Most of these studies (including Politzer's) do not reach clear conclusions, indicating the complexity of language learning and the need to consider more than one variable.

In spite of the problems inherent in large-scale comparisons of teaching methods, a number of such studies have been attempted. The largest of these, the Pennsylvania Study (Smith, 1969, 1970), began in the first year with 104 classes (61 French and 43 German). Most projects study instruction in only one language and use considerably fewer classes.

The best controlled of these large-scale experiments to evaluate achievement of students taught by two different methods was conducted at the University of Colorado from 1960 to 1962 (Scherer and Wertheimer, 1964). It involved all beginning German students (about 300) who were randomly assigned to thirteen sections. The experimental sections were taught by an audiolingual method, while the control groups were taught by a "traditional multiple-approach method." In the second year of the experiment it proved impossible because of scheduling to keep the two groups separate, so all students were taught by an audiolingual method combined with a grammar review. The same tests were given to students in both groups at the end of each semester. There were no significant differences between the groups in overall proficiency. However, on individual tests, differences were observed. At the end of the first year, the experimental group was more proficient in listening and speaking but worse in reading, writing, and translation. At the end of the second year, the experimental group maintained its superiority in speaking but was still weaker in writing and German-to-English translation; there were no differences in listening, reading, and English-to-German translation.

The results of this experiment agree in general with what has been found in other comparisons. Overall proficiency of second language students taken as a group is not significantly affected by the teaching method they are exposed to, but students will do better on those aspects of the language that the method emphasizes.

If the method's emphasis determines what language areas the students become most proficient in, it would seem that the choice of method should depend on the objectives of the course. However, as Rivers (1968) points out, language is a very complex phenomenon, and one type of presentation may be more appropriate for certain elements of language than for others. This need for more than one method because of the complexity of language is echoed by Stern (1970). Lange (1968) points out that two theories of language teaching, instead of being mutually exclusive, may be complementary and both "part of a broader but as yet incomplete theory of language learning" (p. 287). The value of different approaches in language teaching is stressed by a number of writers. Chastain (1970a) discusses programmed instruction, which he says can be based on either a behavioristic or a cognitive approach. He finds neither approach inherently superior but suggests rather that each will be better for particular areas of language teaching. Levin (1972), commenting on the controversy over the audiolingual and cognitive-code theories of language learning, writes:

> It makes intuitive sense to believe that each of the theories has unique advantages. It also makes sense to believe that these advantages are differentially related to such things as the objectives of language teaching, the age and ability of the learners, and the particular aspect of language to be taught. (Levin, 1972, p. 39)

Similarly, Politzer (1970) found that various types of teaching behavior (use of particular types of drills, visual aids, student to student interaction, etc.) could not be considered intrinsically good or bad. He found that each behavior had an optimum frequency of use which depended on "a highly complex relation between the overall method, alternatively available teaching behaviors and student characteristics" (Politzer, 1970, p. 31). Carroll (1971) warns against "any extreme, one-sided theory of language teaching [which] tends to distract the teacher from his task and make him neglectful of certain essential operations in teaching" (p. 113).

An attempt to relate some individual student differences to attainment using a particular method was made by Chastain (1969). He investigated the achievement in six beginning Spanish classes at Purdue University; three classes were taught by an audiolingual method and three by a cognitive method. Students were assigned randomly to one of the two groups. Chastain's variables included several ability factors (high school rank, aptitude, and Scholastic Achievement Test verbal and mathematics scores), academic motivation, modality preference, and sex. In the cognitive classes, four variables had significant positive correlations with achievement: high school rank, aptitude, and SAT verbal and mathematics scores. In the audiolingual classes, only high school rank and SAT mathematics scores had significant positive correlations with achievement. Chastain concludes that the cognitive approach makes the language class more like other school subjects and success in such classes is dependent on the same abilities needed for other academic learning. Success using the audiolingual approach, however, involves other factors that this study did not examine. In spite of the preliminary nature of the results, a multiple linear regression analysis of the data indicated the possibility of using the information from the variables studied to guide students into the most appropriate type of class.

Chastain's study suggests that personal characteristics may be important in determining which teaching method is most suitable for a given student. Hamayan, Genesee, and Tucker (1977) found that personality factors interacted with the type of language program: conformity and control had a significant positive correlation with language achievement in traditional French-language programs but not in immersion classes. Genesee summarized the implications of the study as follows:

> The significant interaction effects . . . which involved the personality factors suggest that the same learning strategies may not be equally effective in all second-language learning contexts. That is to say, language learners in different types of school programs may be confronted with different learning tasks, and, depending on his own preferred personal style, the individual will be more or less successful in a particular setting. (Genesee, 1978, p. 502)

Saville-Troike (1978) finds that in addition to personal characteristics, social and cultural factors help determine the most appropriate method for a given group. She discusses a project for teaching English to Spanish-speaking children of farm laborers in California. According to the cultural patterns for the group, boys were allowed considerable freedom at home, and in the classroom they were extroverted and eager to try new activities without worrying about making mistakes. Girls were kept in the house and given the responsibility of caring for their younger siblings; in the classroom they were shy and reluctant to attempt anything new. The teaching method, in which games and physical activities were used extensively, worked well for the boys, who learned significantly more English than the girls. Saville-Troike suggests that the girls might have done better if the cultural factors influencing their classroom behavior had been taken into account and the teaching method modified accordingly.

Fishman (1966) relates differences in motivation to achievement under different methods. He writes:

> Those students propelled by integrative motives will be most successful in learning by the direct method. They will learn a great deal from out-of-school experiences (such as trips and visits and motion pictures). Those whose motivation is instrumental will tend to profit more from classroom instruction. They will do particularly well in connection with formal conjugation, translation, and other materials emphasized by the older instructional methods. (Fishman, 1966, p. 129)

The most effective language teaching method may also depend in part on the age of the student. Lambert (1963) discusses Ferguson's theory of human abilities and its implications for language teaching. He suggests that one method might not be appropriate at all age levels because of the differences in ability structures at different ages. Rosansky (1975, p. 98) notes that "the cognitive climate [for adults] is not the same as it was in childhood, and that we can recreate neither the old climate nor the former way of structuring." Ausubel voices similar thoughts, maintaining that there is

> no good reason for believing that methods which yield satisfactory results with children must necessarily be appropriate for adults. . . . Naturalness is a slippery argument because what is natural for one age group is not necessarily natural for another. (Ausubel, 1964, p. 420)

Stevick (1973b) presents a double riddle: (1) Why do two language teaching methods which are logical contradictions of each other both achieve excellent results? (2) Why does a given method sometimes work beautifully and at other times poorly? The answer seems to lie in individual variation. Brown (1975, p. 83) in his discussion of the new revolution in language teaching gives as one of its characteristics the "recognition of tremendous variation from learner to learner."

However, while the focus today is on the students and their needs, additional considerations must influence the choice of a method. Mackey's thorough review of the suitability of methods (1965) discusses the need for a method to meet the objectives of the syllabus. He includes several student variables, not only the learners' ages, aptitudes, and interests, but also their proficiency levels in the foreign language and the cultural groups to which they belong. In addition, situational factors such as the amount of time devoted to the language and the size of the class are relevant. Finally, the method must be suited to the skills and teaching load of the teacher.

Chastain (1970a, p. 233) stresses "the need to include as many different types of learning situations as possible in any instructional program if maximum efficiency and achievement are to be attained." He presents the general feeling of language teachers today:

> Certainly the evidence at present lends little support to a continued search for the *one* way to teach. Teachers, students, and the many components of language itself are too varied to justify an insistence upon one particular method. The better question would be to ask which approach should be used with which students by which teachers and for which aspects of the language. (Chastain, 1970a, p. 233)

Teacher

The teacher has long been considered to exert an influence on language learning in the classroom. A great deal has been written on the qualifications needed to be an effective language teacher. In addition to the requirements imposed by individual school systems, various professional societies have published statements listing qualifications that are deemed necessary (e.g., The Modern Language Association Qualifications for High School Teachers of Modern Foreign Languages [Modern Language. . ., 1955], Guidelines for the Certification and Preparation of Teachers of English to Speakers of Other Languages in the United States [Guidelines. . ., 1972]). There are also numerous descriptions of teacher education programs which propose to provide teachers with the kind of training they need to become most effective. A number of these are reviewed by Wolfe and Smith (1972). Other books give hints, general or specific, to teachers or prospective teachers about lesson planning and classroom procedures (e.g., Rivers, 1968).

There are, however, few experiments where the differences among teachers is the main variable. In large studies where more than one teacher was involved there were no significant differences as a result of the instructor variable (e.g., Chastain and Woerdehoff, 1968).

Mackey (1965) discusses the interaction between the teacher and the method used. He considers three factors that determine a teacher's suitability for a particular method. The first factor is skill in the language. An oral approach, for example, demands a higher level of oral proficiency than a grammar-translation approach. The teacher's professional skills constitute the second factor. Different methods emphasize different teaching skills; the teacher must understand and be able to use the techniques demanded. In addition, different methods give varying amounts of guidance to the teacher. An inexperienced teacher may want to use a method that provides detailed teaching suggestions. The third factor is the teaching load. Some methods require a great deal of preparation time; if this is lacking, such methods cannot be used effectively. Also, if the method requires considerable adaptation for use in the particular teaching situation, more preparation time will be needed. A fourth factor that might be added to those discussed by Mackey is the teacher's personality. Some methods ask for behavior that is contrary to the teacher's normal behavior patterns. In order to use a method effectively the teacher must feel comfortable with it.

Ramírez and Stromquist (1979) present a study that looked specifically at differences among teachers. They investigated the teaching behaviors used by a group of eighteen teachers of English as a second language (ESL) in elementary school. The researchers found considerable differences among teachers in the frequency of use of the behaviors under investigation. Some of these teaching behaviors were positively correlated with improved test scores for the students, while others had negative correlations. In addition, variation in the type of teaching strategy used during the class and the teachers' scores on a test of applied linguistics and ESL methodology both had positive correlations with student improvement. In a regression analysis, the teachers' behaviors and their knowledge of linguistics and methodology accounted for about two-thirds of the observed variance in the students' improvement as measured by the pre- and posttest scores.

Politzer (1970) also studied teaching strategies. Like Ramírez and Stromquist he found variation in strategy to be valuable and concluded that "the 'good' teacher is the one who can make the right judgment as to what teaching device is the most valuable at any given moment" (Politzer, 1970, pp. 42-3). This means that teachers must not only be skilled in a variety of teaching techniques but must also be aware at all times of the needs of their students.

The importance of teachers' sensitivity to the needs of their students is stressed by a number of authors. Jakobovits (1970, p. 114) feels that the only contribution teachers can make is based on their "being responsive to learner factors." This enables them to adapt their teaching to their particular group of students, since textbooks and other commercially produced teaching materials are geared to the "average" student.

Hubbard (1975, p. 33), in discussing the interaction between teacher and students, writes: "How the teacher and learner perceive and react to each other must be recognized as a major determinant for successful second language study." She proposes that preparation for second language teaching should include a program in teacher-learner human relations.

Stevick repeatedly stresses the importance of teachers' attitudes toward their students. In one article (Stevick, 1973a) he describes the method used by a certain language teacher. Everything about it seems contrary to good teaching practices, and yet the teacher has superior results. Stevick then describes how the teacher's behavior communicates his supportive attitude toward the students and his acceptance of them as worthwhile equals.

According to Stevick, the most important qualification for a language teacher is the ability to provide opportunities for students to decrease negative feelings and increase positive feelings. A stress on the personal feelings of the students in order to reduce their anxieties is the foremost feature of Curran's Counseling-Learning method (Curran, 1972, 1976). Many others concerned with language teaching voice similar views.

With the emphasis on the student and individual learning, the teacher is now seen as a facilitator—one who does not teach the student but rather by his or her actions makes it possible for the student to learn. Dubin and Olshtain write:

> The facilitator must have an understanding of the variety of settings in which language teaching occurs, must consider the individual and societal needs of the learner, and above all, must be open-minded towards adapting techniques and methods to each situation's particular requirements. (Dubin and Olshtain, 1978, p. 349)

The teacher is still regarded as an important factor in language learning, and there is considerable agreement on a number of important qualifications for a good language teacher. He or she must be skilled in both the language and a variety of teaching techniques, and in addition must have the desire and ability to perceive and fulfill the individual needs of the students.

Time

Everyone knows that it takes time to learn a language. The length of time spent in language study is, in fact, one of the most important factors in achievement. Carroll, in comments following Stern's (1976b) presentation of a Canadian research evaluation, writes:

> The Project as a whole is eloquent confirmation of the statement that time is the most important factor in learning [a second language]. This is not to say that there are no other factors, of course; but when one looks at the group averages, it appears that the amount of time devoted to language instruction is the major factor in creating a useful result. (Stern 1976b, p. 235)

The importance of time spent in learning is attested to by a number of research studies. In Carroll's 1967 study of language majors in U.S. universities, he found that

> students who started in the elementary school were distinctly superior, at graduation from college, to students who started in secondary school, and these in turn were (in most comparisons) distinctly superior to those who started in college. The simplest explanation of this finding is that it is due to differences among the groups in the amount of time they spent in study; there was no evidence that those who started early had any special advantage because of their youth. Starting early did, of course, have the advantage that the student had more time to acquire his skill by the time of college graduation. (Carroll, 1967b, p. 202)

Tucker (1977, p. 34), reporting on a study on English teaching in the Philippines, writes: "The results indicated that English proficiency was directly related to the number of years English had been used as the medium of instruction." Similarly, the final evaluation of the ten-year study of French teaching in Britain concluded that

> the achievement of skill in a foreign language is primarily a function of the amount of time spent studying that language. . . . This is slightly confounded by the fact that older learners tend to be more efficient than younger ones. (Stern, Burstall, and Harley, 1975, pp. 12, 74)

A number of Canadian studies have shown differences in French proficiency when differing amounts of time are devoted to work in the language. Genesee (1978) compared seventh-grade students in three different French programs: early immersion, late immersion, and French as a second language. For the early immersion group, French had been the major medium of instruction beginning in kindergarten, with gradual introduction of work in English. The late immersion group had received one period of French a day beginning in kindergarten but in seventh grade received all instruction (except English language arts) in French. The French as a second language group had had one period of French a day from kindergarten through seventh grade. On tests of French competence the early immersion students performed better than the late immersion students who, in turn, performed better than the French as a second language students. Although group differences in language performance are highly significant, another factor in addition to length of time must be considered. In the immersion programs the second language is used primarily as an instrument for the study of other subjects in the curriculum rather than being taught with the focus on the language itself, as it is in the programs with only one daily period of language study. This difference between language as subject and language as means of communication may contribute to the success of the immersion programs.

Halpern (1976) reports on a study that did not have this additional variable. Two groups of second-grade students with similar scholastic aptitudes were compared. One group had studied French for fifteen minutes a day in kindergarten and twenty minutes a day in first and second grades. The other had studied the second language for thirty minutes a day in kindergarten and forty minutes a day in first and second grades. At the end of the second grade the students with more exposure to French had learned significantly more of the language.

Most studies have been concerned with the amount of time spent using the second language in school. However, it must be the total length of time spent in contact with the language that is of importance in determining second language proficiency. Halpern (1976) discusses the effects of both school time and nonschool time. He found that of the high-scoring students in basic French programs about 75 percent came from homes where French was spoken, had at least one parent who was a native French speaker, or had received French language training outside the school. About 75 percent of the students with average or low scores had none of these opportunities for additional use of French.

Carroll (1967b) also found that use of a second language at home had a statistically significant positive influence on language achievement. Students who reported frequent use of the language in the home performed nearly as well as native speakers on the tests administered, while those reporting occasional use did significantly better than those who never used the language at home. Another statistically significant factor in Carroll's study was time spent in a country where the second language was spoken natively. Those students who had spent a year abroad had significantly better test scores than those who had been abroad for only a summer, who in turn scored higher than those who had never been abroad.

In addition to the total length of time spent in language study, the distribution of the time is an important factor in language attainment. Results from the Ottawa-Carleton French Project suggest that teaching the language twenty minutes a day beginning in kindergarten is not as efficient as longer language classes over a shorter period of time. Similarly, a one-year program where half the school day is devoted to classes using French is more effective than a two-year program that uses French for about a quarter of the day (Stern, 1976b). Larson and Smalley (1972) suggest that for many adults "short periods of high-intensity or total-immersion language training programs produce the best long-term results" (p. 27). Williamson (1968) found an intensive eight-week summer course in Spanish very successful for a group of nineteen university students. All achieved results at least as good as those of control students after a year of instruction, while twelve reached the level the control students attained after two years of instruction. Another study of grade-school children suggests that thirty minutes a day produces better results than sixty minutes every other day (Edwards, 1976).

In addition to the overall distribution of time devoted to language instruction, a further consideration is how that time is allocated to the various aspects of language. Different methods devote differing proportions of class time to oral production, listening, or reading. In some, the students are not asked to produce utterances in the second language for a number of weeks (cf. Winitz and Reeds, 1973) while in other methods they are expected to repeat or initiate material in the second language for most of each language class. The proportions of time in which the teacher talks and in which the students talk vary widely, and in some methods, such as the Silent Way, for much of the class the students neither listen to nor produce language but rather reflect in silence upon what has been presented (Gattegno, 1972). Diller (1975) discusses several methods and how they differ in the allocation of class time.

Both the total length of time devoted to a second language and the distribution of that time depend on the objectives of the language program and its place in the overall curriculum. Further study is needed to determine the optimal time allowance and distribution for particular situations.

Setting

Another important situational factor is the setting in which a language is learned. However, unless the period of language learning is quite short, language students probably find themselves exposed to the language in a number of different settings.

Perhaps the most obvious difference in setting is between learning a new language in one's own country or in another country. If the setting is another country, presumably the target language is the native language of the country. If the setting is one's own country, the target language may or may not be spoken natively by others within the country. If it is not a native language within the country, it may or may not be used to fulfill certain national social functions. The different relationship between the learner and the target language in these situations is sometimes made explicit by distinguishing between a foreign language and a second language.

A second language is one that has a communicative function within the student's country. Wilkins (1972) makes a further distinction between two types of second language situations, depending on whether the language is spoken within the country only by nonnative speakers (second language) or by groups of native speakers (alternate language).

Using Wilkins's terminology, a *second language* is not spoken natively within the country but serves an internal communicative function. It is used in such areas as government and education or as a lingua franca among speakers of different first languages. Since its main function is for internal use, the context of the learning materials is based on the local culture rather than that of another country where the language is spoken natively. If it is used extensively within the country, its study will be begun early in the educational system. Examples of second language situations would be the use of French in the multilingual states of Africa that were formerly French colonies.

An *alternate language* is spoken natively within the student's country and is used to communicate with these native speakers. If the native speakers are members of a minority group, their language may be considered an alternate language only in those areas of concentrated population where the language actually serves a communicative function. Thus, in Canada French would be an alternate language in Quebec but not in Alberta. If, on the other hand, the alternate language is the language of the majority or the socially prestigious group, it may supplant the native language of the minority group, as has often been the case with immigrant children in the United States.

For Wilkins, a *foreign language* does not have a communicative function within the student's country (or section of the country) and is learned for use with speakers from outside the country. Norwegian, which might be considered an alternate language in Minnesota, is a foreign language in most parts of the United States.

Since a foreign language is learned in an area that does not have native speakers of the language, it must be learned primarily in the classroom. Various features of the classroom setting influence the student's learning. The method, the teacher, and the amount of time devoted to the language have already been discussed.

The size of the class is another important factor. It influences the choice of method (Mackey, 1965, p. 329) and determines the amount of individual attention the teacher can give each student. Although a small class is generally considered preferable for language teaching, when this variable has been included in research studies it has not correlated significantly with language achievement (Stern, 1967; Stern, Burstall, and Harley, 1975; Halpern, 1976). Halpern et al. (1976) suggest that teachers who are accustomed to large classes may need as long as three years to adapt their teaching style to take advantage of the special opportunities available in a small class. This may explain the nonsignificant correlations obtained in the Canadian studies.

Burstall (in comments on Halpern, 1976) observes that while in the British Primary French Project class size did not correlate with achievement, the teachers had a warmer, more positive attitude toward the children when the classes were smaller. Slower children took a more active part in the smaller classes, as well. Burstall concludes:

> The relevant evidence on the effects of class size tends to suggest that it is the quality of life in the classroom which may be affected by class size and which might well not show up as a significant difference between mean scores on standard achievement tests but which might nevertheless be accessible to affective measures or to perceptive observation. (Halpern, 1976, p. 178)

Wallace writes, "One of the most important factors to consider in making teaching effective is classroom atmosphere" (Wallace, 1949, p. 73). This factor has received special attention in several recent methods.

Curran's Counseling-Learning method (Begin, 1971; Curran, 1972; Stevick, 1976) specifically attempts to establish an atmosphere in which the learners feel secure and lose anxiety about the language learning situation. To achieve this, the counselor must always speak in a warm, reassuring voice and avoid any suggestion of disapproval, even when corrections must be made. The attitude of total acceptance shown by the counselor and the opportunity for each learner to speak freely about his or her own worries help to reduce tension in the class. In this warm, sympathetic setting students can drop their defenses and concentrate on the language.

Lozanov's Suggestopedia (Stevick, 1976; Mignault, 1978) also attempts to reduce student anxiety by creating an atmosphere of acceptance and security. In addition, comfortable physical surroundings are considered a necessary part of a relaxing environment. Well-designed chairs and a chance for frequent movement during class are believed to prevent fatigue and aid learning. During certain portions of the class, techniques such as playing music are used to increase students' relaxation.

Gattegno's Silent Way (Gattegno, 1972; Stevick, 1976) shares one feature with Counselor-Learning: both make use of periods of silence in the classroom when the students go over in their minds what has been said. This forces the students to concentrate on the language and rely on their own ability to think. In addition, since the teacher speaks very little in both methods (ideally, presenting each new model in the language only once in the Silent Way) the students come to rely on each other. This group spirit provides a feeling of belonging and a sense of satisfaction at being able to help one another. This cooperative atmosphere is an important part of the classroom setting for Suggestopedia as well as Counselor-Learning and the Silent Way.

Regardless of method, classroom language work usually involves the isolation of certain elements of the language and feedback regarding student errors (Krashen and Seliger, 1976). This language analysis constitutes the formal part of language learning. In addition, however, most methods also provide an opportunity for informal learning. In contrast to the formal analysis of language itself, informal learning takes place in the course of actually using the language for communication. Currently, language teaching emphasizes this communicative use of language. Entire texts are written on this aspect of classroom work (Kettering, 1975; Munby, 1978), and even texts based primarily on audiolingual drills include "communicative drills" where students are free to use the language to express their own ideas (Bruder, 1974). While many methods encourage individual use of the language, Counselor-Learning in particular stresses the value of having the students use the language to express their innermost feelings. By sharing these feelings with the class the students are able to help each other overcome their negative reactions to the new language and offer each other encouragement. In addition, the fact that everything said in the target language is of personal importance to the students provides an incentive to learn and an obvious example of the language's usefulness in communication.

Outside activities often supplement informal language use in the classroom. Language clubs, language fairs, and language camps all allow the students to use their new language for communication in a relaxed and enjoyable setting (Conner, 1977). The use of the language outside the classroom often makes it more real to the students. In addition, such activities may be the best opportunity to bring them in contact with the few native speakers who can be found in the community.

Study or residence abroad has long been considered of utmost value in learning a second language. As mentioned earlier, Carroll's study (1967b) found that students who had spent time in a country where the target language was spoken natively had significantly better test scores on all language skills than students who had never been abroad. The British Primary French Project (Burstall, 1975) also found that students who had been to France had significantly higher levels of achievement in French. However, because of its longitudinal nature, this project was also able to compare the attitudes and achievements of the students in primary school before their trips to France. Even before their visit, the students who later elected to go to France were more proficient in French and had more positive attitudes toward the language. Going abroad, however, increased the students' interest in the spoken language. While students who go abroad may not be representative of language students as a whole, serious language students can greatly improve their command of the language by spending some time in the foreign country. At present there are a great many programs which enable students to spend time abroad. These can vary from short exchange programs for high school students to an entire year of study in a foreign university (Lager, 1973; Bourque, 1974; Conner, 1977).

Both formal study and informal use have been advanced as valid ways to learn another language. Wolfe (1967) proposes, however, that with few exceptions children can acquire another language only in informal, natural situations while adults can learn another language only through conscious, formal study.

Krashen (1976) expands on this view. He agrees with Wolfe that children can only acquire languages (both their first and any subsequent ones) without tutelage in informal situations. However, he argues that adults are also able to acquire another language in informal situations. In addition, he suggests that for adults formal learning in the classroom only supplements what they have acquired informally by acting "as a 'monitor', altering the output of the acquired system when time and conditions permit" (Krashen, 1976, p. 163). This accounts for the fact that adult language students achieve higher scores on tests that allow more time and a chance for self-correction and that adults can speak more correctly in classroom situations than in casual conversations outside the class.

Several studies seem to support Krashen's assertions. Children do seem to learn another language faster and more accurately in informal situations than in the classroom, although because of the time factor the two situations are not completely comparable. Studies of the effectiveness of English as a second language classes for children (e.g., Hale and Budar, 1970; Fathman, 1976) show that other factors are more important than the amount of time spent in a special language class. The children who improve their English the fastest are those who use the language the most, through contact with native-speaking peers. As a result, it is generally recommended in the United States that non-English-speaking children who are not in a bilingual program be placed in regular content subject classes with their English-speaking peers for at least part of the school day (Saville-Troike, 1976). As discussed earlier, some of the success of the immersion (and extended) French programs in Canada may be due to the use of the language in subject-matter classes where the emphasis is on communicative use rather than the language itself. Even in regular second language classes for children the emphasis is generally on informal use rather than formal analysis.

Upshur (1968) and Mason (1971) studied the effect of English as a second language (ESL) classes on foreign university students in the United States. In Upshur's study, law students were divided into three groups based on scores on a language entrance exam. All attended law classes, but, in addition, the two lowest scoring groups also had ESL classes (two hours daily for the lowest group and one hour daily for the other). All groups were tested again at the end of the summer. While all groups had improved their English, there were no statistically significant effects attributable to the amount of language instruction each had received. Mason studied two groups of students whose English placement scores showed that they needed work in ESL. One group took ESL classes while the other was allowed to enroll in regular university classes without taking ESL. At the end of a semester there was no significant difference in test scores of the two groups. These studies suggest that adults can learn another language outside the formal classroom situation (although neither controlled for the possibility that the students were engaging in formal language study on their own).

Arguing against informal learning by adults is the often observed fact that many adult immigrants live in their adopted country for years without any noticeable improvement in their command of the new language.

Krashen and Seliger (1976) investigated this situation in a study involving thirty-six adult ESL students. These were given a practice score based on the length of time they had been in the United States and the amount of English the students estimated that they spoke in a day. A second score consisted of the number of years each student had had of formal instruction in English. The students were ranked on the basis of general classroom performance in the spoken language. By using matched pairs of students, Krashen and Seliger determined that for their sample neither the practice score nor length of time in the United States was significantly related to English proficiency, while the amount of formal English instruction did correlate significantly. Krashen, Seliger, and Hartnett (1974) produced similar results and the authors conclude that for adults the number of years of formal language instruction is a better predictor of language performance than number of years spent in the second-language environment.

Krashen (1976) attempts to resolve the seeming contradictions between these two sets of studies by positing that to be effective informal environments must actively involve the language learner—merely hearing the language without paying attention to it is not enough for a student to learn a language. This need for the learner in an informal environment to be actively involved with the language is equally applicable to all ages. Friedlander et al. (1972) report the case of a Spanish-English bilingual child. They estimated that Spanish made up only 4 percent of total language spoken in the child's hearing. However, it was 25 percent of the language directed to her, and the amount of each language to which she was actually responding was the important factor in her acquisition of the two languages.

The importance of actual use of the language in communication situations is shown by several studies of language learning by adults in a natural setting. Hanania and Gradman (1977) and Schumann (1978a) report on adults learning a new language without formal instruction. In both cases (although for different reasons) the learners had only limited contact with native speakers and in both cases progress was slow. In Stauble's 1978 study of three Spanish speakers in the United States, one of the subjects had a high level of motivation and a desire to become acculturated to U.S. society. However, she had little opportunity to use English socially, and Stauble suggests that the reason she had not attained full command of the English grammatical structure tested (after more than ten years in an English-speaking country) was "probably due to her high degree of social distance which does not allow her enough contact to adjust her grammar in conformity with the 'model' language" (Stauble, 1978, p. 50).

Klein and Dittmar (1979) report on an investigation carried out in Germany into the learning of German by foreign workers, 95 percent of whom never attend language classes. Forty-eight Italian and Spanish workers were included in the study that related their syntactic command of German and various social factors. The three variables that contributed most to language performance all indicated that workers who had more contact with native Germans had a better command of the language. The most important factor was contact with Germans during leisure time; the second, age (younger workers had more contact with Germans); the third, contact with Germans at work. The length of residence in Germany was an important factor only during the first two years, after which time it was overridden by other social factors.

In alternate language learning situations where native speakers of the two languages are in close contact, the social relationship between the two language groups has an important influence on language learning. Schumann (1976a) discusses several societal factors that contribute to social proximity or distance between the language learning group and the target language group.

The first of these factors is the relative status of the two groups. Differences may be political, economic, technical, or cultural. Great disparity in status produces a situation in which there is little social contact between groups and language learning is minimal. When the language-learning group has higher status than the target-language group, its members do not feel the need to learn the target language; on the contrary, they may find it useful not to learn it. Nida (1971) gives examples of Anglo Americans abroad who have found it in their interests to speak only English. One of these is a lawyer in Latin America who reads and understands Spanish very well but cannot speak it. His interpreter serves as a prestige symbol and helps keep the Latin Americans at a distance, emphasizing the lawyer's feeling of superiority. If, on the other hand, the language-learning group is much lower in status than the target group, there will be limited contact with the target language and little chance to learn it unless the language is imposed by the dominant group. The best language-learning situation prevails when both groups are approximately equal in status. The effect of difference in status is shown in a study of six Spanish speakers learning English (Schumann, 1976b). One, Alberto, was a lower-class worker while the others belonged to the professional upper-middle class. Alberto made much less linguistic progress than the others. Schumann offers as part of an explanation for this the fact that he alone belonged to a lower social class than that of the average U.S. resident.

Schumann distinguishes three general integration strategies which can be adopted by the language-learning group: assimilation, acculturation, or preservation. If the group decides to assimilate, it gives up its own culture and adopts that of the target-language group, including its language. In acculturation the group maintains its culture for intragroup relations but also learns to function within the culture of the target-language group. This again involves learning the language. Preservation means that the group rejects the culture of the target-language group and maintains its own cultural patterns and native language.

Cultural similarities between the two groups ease integration and learning the target language. As mentioned earlier, Whyte and Holmberg (1956) in their study of U.S. workers in Latin America found that those of

Italian extraction learned Spanish better than those of Anglo Saxon origin. Whyte and Holmberg suggest that the Italian Americans are able to identify with the Latin Americans more easily. In addition to a greater similarity in complexion and hair color, both groups share certain cultural patterns, including a common religion.

Similarly, cultural differences impede language learning. Clarke (1976, p. 382) maintains that "the most serious difficulties encountered by foreign students in the U.S. occur as a result of the differences between their country and the U.S. in terms of 'modernity'." Where the difference in technological advancement is great, the resulting culture clash interferes with language learning.

Enclosure—whether or not there are restrictions (by custom or law) on social intercourse between members of the separate groups—is also related to integration strategies. High enclosure means there is little communication between the two groups and consequently little language learning. This is often the rule for U.S. citizens working abroad where special housing and clubs isolate them from the natives of the country. Whyte and Holmberg (1956) describe the experience of the wives of U.S. workers in Latin America. The families of oil company workers live in a company camp where the wives are surrounded by other English speakers and have very little need to learn Spanish. In fact, they find it difficult to have social relations with Latin Americans. These wives usually learn much less Spanish than their husbands, who may need to use the language at work. On the other hand, the Sears employees do not live in a company camp. Since these wives are not surrounded by other English speakers it is natural for them to make contact with Latin Americans. As a result, they learn a considerable amount of Spanish—often more than their husbands.

Larson and Smalley (1972) emphasize the necessity of participating in the new community in order to learn its language.

> Another learner with only normal aptitude and no chance for formal study whatever learned Japanese because she wanted to. Her longtime interest in art became a natural bridge toward building significant friendships with the women of her neighborhood. She picked up the language by bits and pieces through enormous amounts of time spent in informal unstructured situations as she learned some of the techniques of Japanese art. Her husband, on the other hand, with great aptitude and a good opportunity for formal training, did not learn Japanese because he did not want to learn it. She penetrated a segment of the new community. He did not. (Larson and Smalley, 1972, p. 28)

However, it is not always easy, even when living in the target-language community, to find opportunities for interaction with the speakers of the language. Pike (1969) suggests several socially acceptable strategies that can help bring about this linguistic contact and allow the learner to practice the language.

Fitting into the social structure of the target-language community is also important for children. Wong Fillmore (1976) studied young children acquiring a new language in a natural setting. She discovered that the children's social strategies influenced their learning. Success depended largely on the children's abilities to establish social contacts with those who could give them the necessary linguistic information and allow them to use the language. The good learners joined a group where they could use what they knew of the language. They often acted as though they understood even when they did not, and they depended on their new friends for support.

The cohesiveness of the language-learning group also affects the social distance between the two groups because a cohesive language-learning group tends to remain separate from the target-language group. This is especially true of larger groups where there is more opportunity for intragroup contact. The effect of cohesiveness is shown clearly in English as a second language classes that contain students of different language backgrounds. Where there are large numbers of students who speak the same language, they usually form a cohesive group and spend much of their time outside class together speaking the native language. If only a few students speak a given native language, they are more likely to make friends with U.S. students or those from other language backgrounds with whom they must communicate in English. As a result, they make greater progress in their language studies.

Social distance is also affected by the attitude of the two groups toward each other. The importance of attitude in second language learning has already been discussed.

Another factor Schumann considers is the length of time the language-learning group intends to remain in the target-language area. Adequate time is essential to learn a language and less can be learned on a short visit to the target-language area than during a more extended stay. The expected length of the stay also influences the attitudes of the learners toward the language and its speakers. If the learners know that the stay will be short, they will not be inclined to invest much time and effort in making social contacts with the other group and attempting to learn the language. Larson and Smalley (1972) caution employers against moving their workers from place to place without giving them a chance to achieve functional communication in any language.

The social factors discussed by Schumann affect both the learners' desire to learn the target language and their opportunities to do so. Nida (1971) examines another feature of the social setting that influences language learning. He discusses the leveling-off in language performance which often occurs in spite of continued exposure to the target language. Nida suggests that such leveling-off may be due partly to intellectual laziness, but that it can be attributed mostly to a lack of social pressure to improve.

> [The learners] reach a point where they think their use of the language represents maximal impact for minimal effort. At about this same time those who surround such learners are also likely to give up in making demands upon them,

> either by correcting their usage or by seeming not to understand. In other words, there is a point of mutual adjustment where further demands from the foreign-language community seem like wasted effort, and where further effort on the part of the second-language learner appears to be out of proportion to what he is likely to accomplish. (Nida, 1971, p. 62)

An example of this is found in Shapira (1978) who reports on an adult Spanish speaker, Zoila, who learned English without formal instruction. Zoila acquired enough English to understand what was of interest to her and to make herself understood. Most English speakers with whom she came in contact were sympathetic and accepted her imperfect English. As a result, she felt that her language was good enough and, in spite of her low level of performance and constant interaction with native speakers, she did not make any progress in her learning.

In addition to the personal factors inherent in each child or adult who attempts to acquire a new language, a number of situational factors influence learning. If the setting for language study is the classroom, these factors include the method, the teacher, the size and composition of the class, the physical surroundings, and the general classroom atmosphere. If instead the language is being learned outside the classroom in a natural setting, a number of social factors involving the learners (and their social group) and the target-language group also have influence. Regardless of the setting, learning another language always depends on the amount of time devoted to the task.

Linguistic Factors

In addition to personal and situational factors, linguistic factors influence second language learning. These are of two types: those due to differences between the first and second languages and those residing in the second language itself.

Given a particular native language background, learners find some languages more difficult to learn than others. Cleveland, Mangone, and Adams (1960) present a chart showing the time requirements for attaining different levels of language proficiency for native English speakers of average or high aptitude. They divide the languages into four categories, each of which requires different amounts of time to reach a given level of proficiency. The easiest category includes only Romance and Germanic languages; the next contains other Indo-European languages (Slavic languages, Greek, Persian, and Hindustani) plus Finno-Ugric languages and

Turkish; the two most difficult consist of Far Eastern languages and Arabic, with those that involve a knowledge of the Chinese writing system requiring the most time. According to the chart, students with high aptitude in an extremely intensive program can reach level II proficiency in Danish in three months; they need six months to reach the same proficiency level in Czech, nine months in Thai, and twelve months in Chinese. Ease of learning appears to depend primarily on the linguistic distance between the first and second languages.

An explanation for the different rates observed in learning different languages can be found in the concept of transfer, which is based on the premise that learning task A will later affect learning task B. The transfer can be positive when learning A helps in learning B or negative when learning A hinders learning B. Persons learning a second language have already acquired a language system; thus, the concept of transfer is relevant to second language learning. The amount of similarity between the first and second languages determines how much positive transfer is possible; it is easier to learn a related language because there is the possibility of more positive transfer. When the languages are unrelated, transfer from the first language is in most cases negative, hindering learning.

Jakobovits (1969) suggests that there is an interaction between linguistic distance and certain situational factors. He proposes that the similarity in the learning environments (both physical and mental conditions) for the two languages affects second language learning, and he offers the following hypotheses:

1. In learning unrelated languages there will be less negative transfer if the environments are different.
2. In learning related languages there will be more positive transfer if the environments are similar.

Thus, when the second language is extremely different from the first and carryover from the native language is more likely to be wrong than right, the second language is best learned in an environment that does not make reference to the native language. In this way, students learn the second language as a system with less interference from the native language. On the other hand, if the second language has many similarities to the native language, so that much of the native language knowledge can be carried over into the second language, students learn it best in an environment that makes specific reference to the native language. By pointing out the similarities between the two languages and encouraging the potential positive transfer, teachers can help students learn the second language more easily.

The similarity in language learning environments can be manipulated to some extent by the use of certain teaching methods. For a dissimilar second language a direct method is preferable where there is no use of the first language, whereas for a related second language specific comparisons with the first language are advantageous. However, while the teaching method may influence the students' learning strategies, it cannot completely control the manner in which they approach the task of learning a second language. Some students may try to use their native language as reference for the second language as much as possible, while others may try to keep the two languages separate as much as possible. Which strategy is more effective depends on the target language.

Some support for Jakobovits's second hypothesis has come from a study by Lambert et al. (1963), who studied 192 North American university students in an intensive summer French program. The investigators used a semantic differential task to compare the meanings of French and English translation equivalents. They found that the French and English meanings were more similar at the end of the course than at the beginning, indicating that the students did not keep the two languages separate. Achievement (as measured by average grades received in the course) correlated positively with the amount of interaction between word meanings in the two linguistic systems. This study also shows how student learning strategies can override the effect of the teaching method. Although the classes were taught by a direct method and the students were supposed to use only French during the course, they did in fact approach French through their native English.

Linguistic transfer between the first and second languages has been addressed directly by studies in contrastive linguistics. The differences between the two languages are assumed to be the chief source of difficulty in the learning of the second language. Weinreich writes:

> The greater the difference between the systems, i.e., the more numerous the mutually exclusive forms and patterns in each, the greater is the learning problem and the potential area of interference. (Weinreich, 1953, p. 1)

A comparison of the two languages to discover the differences is seen as the first step in preparing effective teaching materials. Fries writes:

> The most efficient materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner. (Fries, 1945, p. 9)

Although the differences between the two languages are assumed to be the chief source of difficulty in learning the second language, the teacher or textbook writer must decide how to handle the potential problems.

Contrastive analysis usually emphasizes negative transfer, where using a native language pattern results in an error in the second language. It can, however, also be used to locate areas of similarity, where there can be positive transfer from the native language.

Weinreich, in his 1953 study of bilingualism, presents a framework for contrastive linguistic work. He writes:

> Great or small, the differences and similarities between the languages in contact must be exhaustively stated for every domain—phonic, grammatical, and lexical—as a prerequisite to an analysis of interference. (Weinreich, 1953, p.2)

Lado (1957) and Di Pietro (1971) present methods for making a contrastive analysis in each language domain and the practical application of the results to teaching a second language. In addition to the domains mentioned by Weinreich, Lado has a section on comparing the two cultures, and Di Pietro, one on semantics.

A number of texts also compare two specific languages; the best known of these is the Contrastive Structure Series published by the University of Chicago Press in the 1960s (see Ferguson). In addition, numerous articles describe particular points of contrast between two languages (see Hammer and Rice, 1965; Alatis, 1968).

Contrastive analysis can identify potential problems in teaching a second language. However, not all differences between the linguistic structure of the first and second languages lead to errors in the second language, and not all second language errors can be explained by linguistic differences. Dulay and Burt (1974), in a study of syntactic errors made by Spanish-speaking children learning English, found that only 4.7 percent of the errors could be unequivocably classified as the result of interference from the first language, while 87.1 percent of the errors were the same as those made by children learning English as a first language. Researchers have also found that learners with distinctly different first language backgrounds make similar errors in learning a second language (Richards, 1971; Dulay and Burt, 1972).

Stern (1970, p. 5) has written: "The difficulties of second language learning are inherent in the complexities of language." Language is a complicated and interrelated system, impossible to learn all at once. As a result, students must use certain strategies to cope with the learning task. The strategy of transfer from the first language has already been mentioned. Selinker (1972) discusses the strategy of simplifying the second language system. This may involve coalescing grammatical categories (e.g., using only first conjugation endings for all Spanish verbs) or omitting redundant elements (e.g., not marking Spanish articles and adjectives for plural since the nouns are so marked). Closely related to this simplification is the overgeneralization of second language rules; the student applies a previously acquired rule in all situations rather than learning the specific conditions governing its use.

Scholars have pointed out the similarity between the simplified linguistic system of second language learners and pidgins (Smith, 1972a, 1972b; Schumann, 1974, 1978a). The reduced structure characteristic of these linguistic systems has also been seen not as a simplification of a more elaborate language, but as a return to basic, deeper language structures (Kay and Sankoff, 1974; Corder, 1975). These more basic structures, which were used in the beginning stages of learning the native language, are used again as an initial hypothesis in learning a second language. This would explain why second language learners from different language backgrounds make many of the same errors and why these are often the same errors made by children learning the language natively.

A further linguistic complexity is caused by the fact that language has several different social functions. Not all of these will necessarily be mastered by the second language learner. Smith (1972a) distinguishes among the communicative, the integrative, and the expressive functions of language. The least demanding of these is the communicative role. Restricted linguistic systems such as pidgins can perform this basic function. Second language learners with their pidgin-like systems control enough of the language to be able to communicate. If the learners' orientation is purely instrumental, they may feel they have learned enough of the language if they can fulfill this instrumental function. Second language learners who are surrounded by other speakers of their first language may find that the integrative function of language is met by their native language. If they wish to remain part of the social group of first language speakers, they may, in fact, have good reason not to progress in the second language beyond the communicative stage. On the other hand, an integrative orientation may impel second language learners to improve their command of the language in order to become a part of the other social group. The expressive function of language is the most difficult to acquire in a second language because it requires a feeling for the connotations of linguistic forms and an ability to conceptualize in the same manner as the native speakers. For Schumann (1974), the expressive function fulfills certain psychological needs of the individual second language learner, and he or she may continue to use only the first language for these needs even after having long contact with the second language and acquiring good command of the communicative and integrative functions.

In addition to the difficulties encountered in learning any language because of the complex nature of language itself, some languages may be inherently more difficult than others. Cleveland, Mangone, and Adams state on their chart (see the beginning of this section):

> This group of languages [Chinese, Japanese, and Korean] requires a substantial increase in time in Categories II and III [proficiency levels requiring reading ability] because of the difficulty of the writing system. (Cleveland, Mangone, and Adams, 1960, p. 251)

Apart from the writing system, some languages require more time to be mastered by a child as a first language. Slobin writes:

> The Russian child does not fully master his morphology until he is several years older than the age at which the American child is believed to have essentially completed his primary grammatical learning. In this sense, then, it may be more difficult to learn to speak one language natively than another. (Slobin, 1966, p. 136)

Slobin tempers his statement by acknowledging the need for further research into the question, but if certain languages were shown to be more difficult to acquire natively, it would seem to follow that they would also be more difficult to learn as a second language.

Conclusion

This work has discussed the most important factors that have been studied for their possible influence on second language learning. A majority of these are personal factors: intelligence, language aptitude, attitude and motivation, personality traits and other psychological factors, age, socioeconomic status, and sex. Other factors pertain to the learning situation: method, teacher, time, and setting. In addition, there are linguistic factors.

The empirical investigations reviewed here have provided insights into the multitude of factors considered to contribute to successful second language learning. It is hoped that the information from such studies will enable teachers to understand their students' needs better and to plan and teach more effective language courses.

References

Adorno, T.W.; Frenkel-Brunswick, Else; Levinson, D.J.; and Sanford, R.N. *The Authoritarian Personality*. New York: Harper, 1950.

Alatis, James E. "The Urge to Communicate vs. Resistance to Learning in English as a Second Language." *English Language Teaching Journal* 30 (1976): 265-81.

______, ed. *Georgetown University Round Table on Languages and Linguistics 1968*. Washington, D.C.: Georgetown University Press, 1968.

Albert, Martin L., and Obler, Loraine K. *The Bilingual Brain: Neuropsychological and Neurolinguistic Aspects of Bilingualism*. New York: Academic Press, 1978.

Angiolillo, Paul F. "French for the Feeble-Minded: An Experiment." *Modern Language Journal* 26 (1942): 266-71.

Anisfeld, Moshe, and Lambert, Wallace E. "Social and Psychological Variables in Learning Hebrew." *Journal of Abnormal and Social Psychology* 63 (1961): 524-29.

Asher, James J. "Children's First Language as a Model for Second Language Learning." *Modern Language Journal* 56 (1972): 133-39.

_____, and Price, Ben S. "The Learning Strategy of the Total Physical Response: Some Age Differences." *Child Development* 38 (1967): 1219-27.

_____, and García, R. "The Optimal Age to Learn a Foreign Language." *Modern Language Journal* 53 (1969): 334-41.

Ausubel, David P. "Adults versus Children in Second-Language Learning: Psychological Considerations." *Modern Language Journal* 48 (1964): 420-24.

_____. *Educational Psychology: A Cognitive View*. New York: Holt, Rinehart & Winston, 1968.

Bartley, Diana E. "The Importance of the Attitude Factor in Language Dropout: A Preliminary Investigation of Group and Sex Differences." *Foreign Language Annals* 3 (1970): 383-93.

Begin, Yves, S.J. *Evaluative and Emotional Factors in Learning a Foreign Language*. Montreal: Bellarmin, 1971.

Bourque, Jane M. "Study Abroad and Intercultural Communication." In *The Challenge of Communication*. ACTFL Review of Foreign Language Education, vol. 6, edited by Gilbert A. Jarvis, pp. 329-51. Skokie, Ill.: National Textbook Company, 1974.

Bovée, Arthur Gibbon, and Froehlich, Gustav J. "Some Observations on the Relationship between Mental Ability and Achievement in French." *Modern Language Journal* 30 (1946): 333-36.

Brière, Eugène J. "Variables Affecting Native Mexican Children's Learning Spanish as a Second Language." *Language Learning* 28 (1978): 160-74.

Brown, H. Douglas. "Affective Variables in Second Language Acquisition." *Language Learning* 23 (1973): 231-44.

_____. "The Next 25 Years: Shaping the Revolution." In *New Directions in Second Language Learning, Teaching, and Bilingual Education*, edited by Marina K. Burt and Heidi C. Dulay, pp. 80-85. Washington, D.C.: TESOL, 1975.

_____. "Some Limitations CL/CLL Models of Second Language Teaching." *TESOL Quarterly* 11 (1977): 365-72.

Brown, Jason W., and Jaffe, Joseph. "Hypothesis on Cerebral Dominance." *Neuropsychologia* 13 (1975): 107-10.

Bruder, Mary Newton. *MMC: Developing Communicative Competence in English as a Foreign Language*. Pittsburgh: University Center for International Studies, 1974.

Burstall, Clare. "French in the Primary Schools: The British Experiment." In *French from Age Eight, or Eleven?*, edited by H.H. Stern, Clare Burstall, and Birgit Harley, pp. 7-36. Toronto: Ontario Institute for Studies in Education, 1975.

Butterworth, Guy, and Hatch, Evelyn. "A Spanish-Speaking Adolescent's Acquisition of English Syntax." In *Second Language Acquisition: A Book of Readings*, edited by Evelyn M. Hatch, pp. 231-45. Rowley, Mass.: Newbury House, 1978.

Carroll, John B. *Research on Teaching Foreign Languages.* Ann Arbor: University of Michigan Press, 1961.

______. "The Prediction of Success in Intensive Foreign Language Training." In *Training Research and Education,* edited by Robert Glaser, pp. 87-136. New York: John Wiley & Sons, 1962.

______. "Wanted: A Research Basis for Educational Policy on Foreign Language Teaching." In *The Psychology of Language, Thought, and Instruction,* edited by John P. DeCecco, pp. 418-26. New York: Holt, Rinehart & Winston, 1967a.

______. *The Foreign Language Attainments of Language Majors in the Senior Year: A Survey Conducted in U.S. Colleges and Universities.* Cambridge, Mass.: Laboratory for Research in Instruction, Harvard University, 1967b.

______. "Psychological and Educational Research into Second Language Teaching to Young Children." In *Languages and the Young School Child,* edited by H.H. Stern, pp. 56-68. London: Oxford University Press, 1969.

______. "Current Issues in Psycholinguistics and Second Language Teaching." *TESOL Quarterly* 5 (1971): 101-14.

______, and Sapon, Stanley M. *Modern Language Aptitude Test.* New York: Psychological Corporation, 1959.

Chastain, Kenneth. "Prediction of Success in Audio-Lingual and Cognitive Classes." *Language Learning* 19 (1969): 27-39.

______. "Behavioristic and Cognitive Approaches in Programmed Instruction." *Language Learning* 20 (1970a): 223-35.

______. "A Methodological Study Comparing the Audio-Lingual Habit Theory and the Cognitive Code-Learning Theory—A Continuation." *Modern Language Journal* 54 (1970b): 257-66.

______. "Affective and Ability Factors in Second-Language Acquisition." *Language Learning* 25 (1975): 153-61.

______, and Woerdehoff, Frank J. "A Methodological Study Comparing the Audio-Lingual Habit Theory and the Cognitive Code-Learning Theory." *Modern Language Journal* 52 (1968): 268-79.

Chihara, Tetsuro, and Oller, John W. "Attitudes and Attained Proficiency in EFL: A Sociolinguistic Study of Adult Japanese Speakers." *Language Learning* 28 (1978): 55-68.

Clarke, Mark A. "Second Language Acquisition as a Clash of Consciousness." *Language Learning* 26 (1976): 377-90.

Clément, R.; Gardner, R.C.; and Smythe, P.C. "Inter-Ethnic Contact: Attitudinal Consequences." *Canadian Journal of Behavioural Science* 9 (1977): 205-15.

Clement, R.; Smythe, Padric C.; and Gardner, Robert C. "Persistence in Second-Language Study: Motivational Considerations." *Canadian Modern Language Review* 34 (1978): 688-94.

Cleveland, Harlan; Mangone, Gerard J.; and Adams, J.C. *The Overseas American.* New York: McGraw-Hill Book Company, 1960.

Conner, Maurice W. "New Curricular Connections." In *The Language Connection: From the Classroom to the World.* ACTFL Review of Foreign Language Education, vol. 9, edited by June K. Phillips, pp. 95-121. Skokie, Ill.: National Textbook Company, 1977.

Corder, S. Pit. " 'Simple Codes' and the Source of the Second Language Learner's Initial Heuristic Hypothesis." Paper presented at the colloquium "Theoretical Models in Applied Linguistics" IV, 1975, Université de Neuchatel.

Crowne, D.P., and Marlowe, D. *The Approval Motive.* New York: John Wiley & Sons, 1964.

Curran, Charles A. *Counseling-Learning: A Whole Model for Education.* New York: Grune & Stratton, 1972.

______. *Counseling-Learning in Second Languages.* Apple River, Ill.: Apple River Press, 1976.

De García, Rebecca; Reynolds, Sue; and Savignon, Sandra J. "Foreign-Language Attitude Survey." *Canadian Modern Language Review* 32 (1976): 302-04.

Diller, Karl C. "Some New Trends for Applied Linguistics and Foreign Language Teaching in the United States." *TESOL Quarterly* 9 (1975): 65-73.

Dingwall, William Orr, and Whitaker, Harry A. "Neurolinguistics." In *Annual Review of Anthropology,* vol. 3, edited by Bernard J. Siegel, Alan R. Beals, and Stephen A. Tyler, pp. 323-56. Palo Alto: Annual Reviews, 1974.

Di Pietro, Robert J. *Language Structures in Contrast.* Rowley, Mass.: Newbury House, 1971.

Doron, Sandra. "Reflectivity-Impulsivity and Their Influence on Reading for Inference for Adult Students of EFL." Unpublished manuscript. Ann Arbor: University of Michigan, 1973.

Dubin, Fraida, and Oshtain, Elite. "A Further Comment on H. Douglas Brown's 'Some Limitations of CL/CLL Models of Second Language Learning' (Vol. 11, No. 4, December 1977)." *TESOL Quarterly* 12 (1978): 347-49.

Dulay, Heidi C., and Burt, Marina K. "Goofing: An Indicator of Children's Second Language Learning Strategies." *Language Learning* 22 (1972): 235-52.

______. "Errors and Strategies in Child Second Language Acquisition." *TESOL Quarterly* 8 (1974): 129-36.

Dunkel, Harold B. *Second Language Learning.* Boston: Ginn & Company, 1948.

Dunkel, Harold B., and Pillet, R.A. "The French Program in the University of Chicago Elementary School." *Elementary School Journal* 57 (1956): 17-27.

______. "A Second Year of French in the Elementary School." *Elementary School Journal* 58 (1957): 143-51.

______. "A Third Year of French in the Elementary School." *Elementary School Journal* 59 (1959): 265.

Eckstrand, L.H. *Evaluation of Teaching Technique and Results on the Basis of Recorded Tests from Pupils in Grades 1, 2, 3 and 4.* Swedish National Board of Education, 1964.

______. "Age and Length of Residence as Variables Related to the Adjustment of Migrant Children, with Special Reference to Second Language Learning." Paper presented at the Association Internationale de Linguistique Appliqué (AILA) Congress, 1975, Stuttgart.

Edwards, Henry P. "Evaluation of the French Immersion Program Offered by the Ottawa Roman Catholic Separate School Board." *Canadian Modern Language Review* 33 (1976): 137-42.

"ERIC Documents: Learning Styles and Strategies." *ERIC/CLL News Bulletin* (June 1979): 3.

Ervin-Tripp, Susan. "Is Second Language Learning Like the First?" *TESOL Quarterly* 8 (1974): 111-27.

Fathman, Ann K. "The Relationship between Age and Second Language Productive Ability." *Language Learning* 25 (1975): 245-53.

______. "Variables Affecting the Successful Learning of English as a Second Language." *TESOL Quarterly* 10 (1976): 433-41.

Feenstra, H.J. "The Process of Second-Language Learning." In *Proceedings of the XVI International Congress of Applied Psychology* (Amsterdam, 18-22 August 1968), pp. 576-84. Amsterdam: Swets & Zeitlinger, 1968.

______. "Parent and Teacher Attitudes: Their Role in Second-Language Acquisition." *Canadian Modern Language Review* 26 (1969): 5-13.

Ferguson, Charles A., editor. *Contrastive Structure Series.* Chicago: University of Chicago Press, 1962, 1965.

Fishman, Joshua A. "The Implications of Bilingualism for Foreign Language Teaching and Language Learning." In *Trends in Language Teaching,* edited by Albert Valdman, pp. 121-32. New York: McGraw-Hill, 1966.

Florander, J., and Jansen, M. *Skoleforsøg i engelsk 1959-1965.* Denmark: Institute of Education.

Friedlander, Bernard Z.; Jacobs, Antoinette Cyrulik; Davis, Barbara Bergman; and Wetstone, Harriet S. "Time-Sampling Analysis of Infants' Natural Language Environments in the Home." *Child Development* 43 (1972): 730-40.

Fries, Charles C. *Teaching and Learning English as a Foreign Language.* Ann Arbor: University of Michigan Press, 1945.

Gardner, Robert C. "Attitudes and Motivation: Their Role in Second-Language Acquisition. *TESOL Quarterly* 2 (1968): 141-50.

______, and Lambert, Wallace E. "Language Aptitude, Intelligence, and Second-Language Achievement." *Journal of Educational Psychology* 56 (1965): 191-99.

______, and Lambert, Wallace E. *Attitudes and Motivation in Second-Language Learning.* Rowley, Mass.: Newbury House, 1972.

______; Lambert, Wallace E.; Clément, R.; and Gliksman, L. "Second-Language Learning: A Social Psychological Perspective." *Canadian Modern Language Review* 32 (1976): 198-213.

______; Smythe, Padric C.; Kirby, D.M.; and Bramwell, J.R. *Second Language Acquisition: A Social Psychological Approach.* Final Report. London, Ont.: Ontario Ministry of Education, Grant-in-aid to Education, 1974.

Gattegno, Caleb. *Teaching Foreign Languages in Schools: The Silent Way.* New York: Educational Solutions, 1972.

______. *The Common Sense of Teaching Foreign Languages.* New York: Educational Solutions, 1976.

Genesee, Fred. "The Role of Intelligence in Second Language Learning." *Language Learning* 26 (1976): 267-80.

______. "Individual Differences in Second-Language Learning." *Canadian Modern Language Review* 34 (1978): 490-504.

Gorosch, M., and Axelsson, C.A. *English without a Book: A Bilingual Experiment in Primary Schools by Audio-Visual Means.* Berlin: Cornelsen Verlag, 1964.

Greenberg, Jacob. "Relation of Mental Ability to Achievement in Foreign Languages in the Junior High Schools of New York City." Ph.D. dissertation, New York University, 1938.

Grinder, R.E.; Otomo, A.; and Toyota, W. *Comparison between Second, Third, and Fourth Grade Children in the Audio-Lingual Learning of Japanese as a Second Language.* Honolulu: University of Hawaii, 1961.

Guidelines for the Certification and Preparation of Teachers of English to Speakers of Other Languages in the United States. Washington, D.C.: TESOL, 1972.

Guiora, Alexander Z.; Lane, Harlan L.; and Bosworth, Lewis A. "An Exploration of Some Personality Variables in Authentic Pronunciation of a Second Language." In *Language and Language Behavior,* edited by Eric M. Zale, pp. 261-66. New York: Appleton-Century-Crofts, 1968.

Guiora, Alexander Z.; Brannon, Robert C.L.; and Dull, Cecelia Y. "Empathy and Second Language Learning." *Language Learning* 22 (1972): 111-30.

Guiora, Alexander Z.; Paluszny, Maria; Beit-Hallahmi, Benjamin; Catford, John C.; Cooley, Ralph E.; and Dull, Cecelia Y. "Language and Person: Studies in Language Behavior." *Language Learning* 25 (1975): 43-61.

Hale, Thomas M., and Budar, Eva C. "Are TESOL Classes the Only Answer?" *Modern Language Journal* 54 (1970): 487-92.

Halpern, Gerald. "An Evaluation of French Learning Alternatives." *Canadian Modern Language Review* 33 (1976): 162-72.

_____ ; MacNab, G.L.; Kirby, D.M.; Tuong, T.T.; Martin, J.C.; Hendelman, T.; and Tourigny, R. *Alternative School Programs for French Language Learning.* Toronto: Ontario Institute for Studies in Education, 1976.

Halsall, Elizabeth. "Linguistic Aptitude." *Modern Languages* 50 (1969): 18-22.

Hamayan, Else; Genesee, Fred; and Tucker, G. Richard. "Affective Factors and Language Exposure in Second Language Learning." *Language Learning* 27 (1977): 225-41.

Hammer, John H., and Rice, Frank A. *A Bibliography of Contrastive Linguistics.* Washington, D.C.: Center for Applied Linguistics, 1965.

Hanania, Edith A.S., and Gradman, Harry L. "Acquisition of English Structures: A Case Study of an Adult Native Speaker of Arabic in an English-Speaking Environment." *Language Learning* 27 (1977): 75-91.

Hancock, Charles R. "Guiding Teachers to Respond to Individual Differences in the Affective Domain." *Foreign Language Annals* 6 (1972a): 225-31.

_____ . "Student Aptitude, Attitude, and Motivation." In *Foreign Language Education: A Reappraisal.* ACTFL Review of Foreign Language Education, vol. 4, edited by Dale L. Lange and Charles J. James, pp. 127-55. Skokie, Ill.: National Textbook Company, 1972b.

Hatch, Evelyn M. "Second Language Learning Universals?" *Working Papers on Bilingualism, No. 3.* Toronto: Ontario Institute for Studies in Education, 1974.

_____ . "Optimal Age or Optimal Learners?" *Workpapers in Teaching English as a Second Language* 11 (1977): 45-56. Los Angeles: University of California.

_____ , ed. *Second Language Acquisition: A Book of Readings.* Rowley, Mass.: Newbury House, 1978.

Hawkins, Lee E. "Extra-School Factors That Influence Language Learning." *Foreign Language Education: A Reappraisal.* ACTFL Review of Foreign Language Education, vol. 4, edited by Dale L. Lange and Charles J. James, pp. 321-40. Skokie, Ill.: National Textbook Company, 1972.

Heist, Paul, and Yonge, George. *Omnibus Personality Inventory, Form F.* New York: Psychological Corporation, 1968.

Hill, Jane H. "Foreign Accents, Language Acquisition, and Cerebral Dominance Revisited." *Language Learning* 20 (1970): 237-48.

Hofman, John E., and Zak, Ital. "Interpersonal Contact and Attitude Change in a Cross-Cultural Situation." *Journal of Social Psychology* 78 (1969): 165-71.

Hubbard, Louise J. "Aptitude, Attitude and Sensitivity." *Foreign Language Annals* 8 (1975): 33-37.

Ingram, Diana. "Cerebral Speech Lateralization in Young Children." *Neuropsychologia* 13 (1975): 103-05.

Jacobsen, Morris, and Imhoof, Maurice. "Predicting Success in Learning a Second Language." *Modern Language Journal* 58 (1974): 329-36.

Jakobovits, Leon A. "Second Language Learning and Transfer Theory: A Theoretical Assessment." *Language Learning* 19 (1969): 55-86.

_____. *Foreign Language Learning: A Psycholinguistic Analysis of the Issues.* Rowley, Mass.: Newbury House, 1970.

Kagan, Jerome. "Reflection-Impulsivity and Reading Ability in Primary Grade Children." *Child Development* 36 (1965): 609-28.

_____; Pearson, L.; and Welch, Lois. "Conceptual Impulsivity and Inductive Reasoning." *Child Development* 37 (1966): 583-94.

Kay, Paul, and Sankoff, Gillian. "A Language-Universals Approach to Pidgins and Creoles." In *Pidgins and Creoles: Current Trends and Prospects,* edited by David DeCamp and Ian F. Hancock, pp. 61-72. Washington, D.C.: Georgetown University Press, 1974.

Kettering, Judith Carl. *Developing Communicative Competence: Interaction Activities in English as a Second Language.* Pittsburgh: University Center of International Studies, 1975.

Kirch, Max S. "At What Age Elementary School Language Teaching?" *Modern Language Journal* 40 (1956): 399-400.

Klein, Wolfgang, and Dittmar, Norbert. *Developing Grammars: The Acquisition of German Syntax by Foreign Workers.* New York: Springer-Verlag, 1979.

Kleinmann, Howard H. "The Strategy of Avoidance in Adult Second Language Acquisition." In *Second Language Acquisition Research: Issues and Implications,* edited by William C. Ritchie, pp. 157-74. New York: Academic Press, 1978.

Krashen, Stephen D. "Lateralization, Language Learning, and the Critical Period: Some New Evidence." *Language Learning* 23 (1973): 63-74.

_____. "Formal and Informal Linguistic Environments in Language Acquisition and Language Learning." *TESOL Quarterly* 10 (1976): 157-68.

_____. "Individual Variation in the Use of the Monitor." In *Second Language Acquisition Research: Issues and Implications,* edited by William C. Ritchie, pp. 175-83. New York: Academic Press, 1978a.

_____. "The Monitor Model for Second-Language Acquisition." In *Second-Language Acquisition and Foreign Language Teaching,* edited by Rosario C. Gingras, pp. 1-26. Arlington, Va.: Center for Applied Linguistics, 1978b.

_____; Long, Michael A.; and Scarcella, Robin C. "Age, Rate and Eventual Attainment in Second Language Acquisition." *TESOL Quarterly* 13 (1979): 573-83.

_____, and Seliger, Herbert W. "The Role of Formal and Informal Environments in Second Language Learning: A Pilot Study." *Linguistics* 172 (1976): 15-21.

_____ ; Seliger, Herbert W.; and Hartnett, D. "Two Studies in Adult Second Language Learning." *Kritikon Litterarum* 2/3 (1974): 220-28.

Lado, Robert. *Linguistics across Cultures.* Ann Arbor: University of Michigan Press, 1957.

Lager, Robert. "Study Programs Abroad." In *Georgetown University Round Table on Languages and Linguistics 1973,* edited by Kurt R. Jankowsky, pp. 212-16. Washington, D.C.: Georgetown University Press, 1973.

Lambert, Wallace E. "Psychological Approaches to the Study of Language." *Modern Language Journal* 47 (1963): 51-62, 114-21.

_____ ; Gardner, R.C.; Barik, H.C.; and Tunstall, K. "Attitudinal and Cognitive Aspects of Intensive Study of a Second Language." *Journal of Abnormal and Social Psychology* 66 (1963): 358-68.

_____ ; Gardner, R.C.; Olton, R.; and Tunstall, K. "A Study of the Roles of Attitudes and Motivation in Second-Language Learning." In *Readings in the Sociology of Language,* edited by Joshua A. Fishman, pp. 473-91. The Hague: Mouton, 1968.

Lange, Dale L. "Methods." In *The Britannica Review of Foreign Language Education,* vol. 1, edited by Emma M. Birkmaier, pp. 281-310. Chicago: Encyclopaedia Britannica, 1968.

Larew, Leonor A. "The Optimum Age for Beginning a Foreign Language." *Modern Language Journal* 45 (1961): 203-06.

Larson, Donald N., and Smalley, William A. *Becoming Bilingual: A Guide to Language Learning.* South Pasadena, Calif.: William Carey Library, 1972.

Lederer, Elaine. "The Effect of Motivational Factors on the Learning Ability for Second Language Acquisition." Unpublished manuscript. Ann Arbor: University of Michigan, 1973.

Lenneberg, Eric H. *Biological Foundations of Language.* New York: John Wiley & Sons, 1967.

Lerea, Louis, and Kohut, Suzanne. "A Comparative Study of Monolinguals and Bilinguals in a Verbal Task Performance." *Journal of Clinical Psychology* 17 (1961): 49-52.

Levin, Lennart. *Comparative Studies in Foreign-Language Teaching: The GUME Project.* Stockholm: Almqvist & Wiksell, 1972.

Lorge, I. "Psychological Bases for Adult Learning." *Teachers College Record* 41 (1939): 4-12.

Lukmani, Yasmeen M. "Motivation to Learn and Language Proficiency." *Language Learning* 22 (1972): 261-73.

Mackey, William Francis. *Language Teaching Analysis.* Bloomington: Indiana University Press, 1965.

McLaughlin, Barry. "Second-Language Learning in Children." *Psychological Bulletin* 84 (1977): 438-59.

Madden, Carolyn; Bailey, Nathalie; Eisenstein, Miriam; and Anderson, Lloyd. "Beyond Statistics in Second Language Acquisition Research." In *Second Language Acquisition Research: Issues and Implications,* edited by William C. Ritchie, pp. 109-25. New York: Academic Press, 1978.

Mason, Charles. "The Relevance of Intensive Training in English as a Foreign Language for University Students." *Language Learning* 21 (1971): 197-204.

Mignault, Louis B. "Suggestopaedia: Is There a Better Way to Learn?" *Canadian Modern Language Review* 34 (1978): 695-701.

"Modern Language Association Qualifications for High School Teachers of Modern Foreign Languages." *PMLA* 70, no. 4, part 2 (1955): 46-49.

Molfese, Dennis; Freeman, Robert B., Jr.; and Palermo, David S. "The Ontogeny of Brain Lateralization for Speech and Nonspeech Stimuli." *Brain and Language* 2 (1975): 356-68.

Munby, John. *Communicative Syllabus Design*. Cambridge: Cambridge University Press, 1978.

Naiman, N.; Fröhlich, M.; Stern, H.H.; and Todesco, A. *The Good Language Learner*. Toronto: Ontario Institute for Studies in Education, 1978.

Natelson, Elissa R. "The Predictive Validity of Each of the Five Parts of the Modern Language Aptitude Test; The Effect of Previous Language Training on MLAT Scores; The Correlation of MLAT Scores and Achievement in Specific Language Groups." Ph.D. dissertation, Georgetown University, 1976.

Nida, Eugene A. "Motivation in Second Language Learning." *Language Learning* 7 (1956-57): 11-16.

_____. "Some Psychological Problems in Second Language Learning." *Language Learning* 8 (1957-58): 7-15.

_____. "Sociopsychological Problems in Language Mastery and Retention." In *The Psychology of Second Language Learning: Papers from the Second International Congress of Applied Linguistics* (Cambridge, 8-12 September 1969), edited by Paul Pimsleur and Terrence Quinn, pp. 59-65. Cambridge: Cambridge University Press, 1971.

Oller, John W., Jr., and Perkins, Kyle. "Intelligence and Language Proficiency as Sources of Variance in Self-Reported Affective Variables." *Language Learning* 28 (1978): 85-97.

Oller, John W., Jr.; Baca, Lori; and Vigil, Fred. "Attitudes and Attained Proficiency in ESL: A Sociolinguistic Study of Mexican Americans in the Southwest." *TESOL Quarterly* 11 (1977): 173-83.

Oller, John W., Jr.; Hudson, Alan J.; and Liu, Phyllis Fei. "Attitudes and Attained Proficiency in ESL: A Sociolinguistic Study of Native Speakers of Chinese in the United States." *Language Learning* 27 (1977): 1-27.

Olson, Linda L., and Samuels, S. Jay. "The Relationship between Age and Accuracy of Foreign Language Pronunciation." *Journal of Educational Research* 66 (1973): 263-68.

Omaggio, Alice C. "Successful Language Learners: What Do We Know about Them?" *ERIC/CLL News Bulletin* (May 1978): 2-3.

Oyama, Susan. "A Sensitive Period for the Acquisition of a Nonnative Phonological System." *Journal of Psycholinguistic Research* 5 (1976): 261-84.

Penfield, Wilder, and Roberts, Lamar. *Speech and Brain Mechanisms*. Princeton: Princeton University Press, 1959.

Pike, Eunice V. "Language Learning in Relation to Focus." *Language Learning* 19 (1969): 107-16.

Pimsleur, Paul. *Language Aptitude Battery*. New York: Harcourt, Brace & World, 1964.

_____. "Testing Foreign Language Learning." In *Trends in Language Teaching*, edited by Albert Valdman, pp. 175-214. New York: McGraw-Hill, 1966.

______ ; Mosberg, Ludwig; and Morrison, Andrew L. "Student Factors in Foreign Language Learning." *Modern Language Journal* 46 (1962): 160-70.

______ ; Sundland, D.M.; and McIntyre, R. *Underachievement in Foreign Language Learning: Final Report* (Contract No. OE-2-14-004). Columbus, Ohio: Ohio State University Research Foundation, 1963.

Politzer, Robert L. "Assiduity and Achievement." *Modern Language Journal* 44 (1960): 14-16.

______ . "The Role and Place of Explanation in the Pattern Drill." *International Review of Applied Linguistics* 6 (1968): 315-31.

______ . "Some Reflections on Good and Bad Language Teaching Behavior." *Language Learning* 20 (1970): 31-43.

______ , and Weiss, Louis. "Developmental Aspects of Auditory Discrimination, Echo Response and Recall." *Modern Language Journal* 53 (1969): 75-85.

Pride, J.B. *The Social Meaning of Language*. London: Oxford University Press, 1971.

Pritchard, D.F.L. "An Investigation into the Relationship between Personality Traits and Ability in Modern Languages." *British Journal of Educational Psychology* 22 (1952): 147-48.

Ramírez, Arnulfo G., and Politzer, Robert L. "Comprehension and Production in English as a Second Language by Elementary School Children and Adolescents." In *Second Language Acquisition: A Book of Readings*, edited by Evelyn M. Hatch, pp. 313-32. Rowley, Mass.: Newbury House, 1978.

Ramírez, Arnulfo G., and Stromquist, Nelly P. "ESL Methodology and Student Learning in Bilingual Elementary Schools." *TESOL Quarterly* 13 (1979): 145-58.

Ramsey, Craig A., and Wright, E.N. "Age and Second Language Learning." *Journal of Social Psychology* 94 (1974): 115-21.

Richards, Jack C. "A Non-Contrastive Approach to Error Analysis." *English Language Teaching* 25 (1971): 204-19.

Rivers, Wilga M. *Teaching Foreign-Language Skills*. Chicago: University of Chicago Press, 1968.

Rosansky, Ellen J. "The Critical Period for the Acquisition of Language: Some Cognitive Developmental Considerations." *Working Papers on Bilingualism No. 6*. Toronto: Ontario Institute for Studies in Education, 1975.

Rubin, Joan. "What the 'Good Language Learner' Can Teach Us." *TESOL Quarterly* 9 (1975): 41-51.

Sanford, Fillmore H. "Speech and Personality." *Psychological Bulletin* 39 (1942): 811-45.

Savignon, Sandra J. "On the Other Side of the Desk: A Look at Teacher Attitudes and Motivation in Second-Language Learning." *Canadian Modern Language Review* 32 (1976): 295-302.

Saville-Troike, Muriel. *Foundations for Teaching English as a Second Language*. Englewood Cliffs, N.J.: Prentice-Hall, 1976.

______ . "Implications of Research on Adult Second Language Acquisition for Teaching Foreign Languages to Children." In *Second-Language Acquisition and Foreign Language Teaching*, edited by Rosario C. Gingras, pp. 68-77. Arlington, Va.: Center for Applied Linguistics, 1978.

Schachter, Jacquelyn. "An Error in Error Analysis." *Language Learning* 24 (1974): 205-14.

Scherer, George A.C., and Wertheimer, Michael. *A Psycholinguistic Experiment in Foreign-Language Teaching.* New York: McGraw-Hill, 1964.

Schumann, John H. "The Implications of Interlanguage, Pidginization and Creolization for the Study of Adult Second Language Acquisition." *TESOL Quarterly* 8 (1974): 145-52.

_____ . "Affective Factors and the Problem of Age in Second Language Acquisition." *Language Learning* 25 (1975): 209-35.

_____ . "Social Distance as a Factor in Second Language Acquisition." *Language Learning* 26 (1976a): 135-43.

_____ . "Second Language Acquisition: The Pidginization Hypothesis." *Language Learning* 26 (1976b): 391-408.

_____ . *The Pidginization Process: A Model for Second Language Acquisition.* Rowley, Mass.: Newbury House, 1978a.

_____ . "The Acculturation Model for Second Language Acquisition." In *Second-Language Acquisition and Foreign Language Teaching,* edited by Rosario C. Gingras, pp. 27-50. Arlington, Va.: Center for Applied Linguistics, 1978b.

_____ ; Holroyd, Jean; and Campbell, Russell N. "Improvement of Foreign Language Pronunciation under Hypnosis: A Preliminary Study." *Language Learning* 28 (1978): 143-48.

Scovel, Thomas. "Foreign Accents, Language Acquisition, and Cerebral Dominance." *Language Learning* 19 (1969): 245-53.

_____ . "The Effect of Affect on Foreign Language Learning: A Review of the Anxiety Research." *Language Learning* 28 (1978): 129-42.

Seliger, Herbert W. "Implications of a Multiple Critical Periods Hypothesis for Second Language Learning." In *Second Language Acquisition Research: Issues and Implications,* edited by William C. Ritchie, pp. 11-19. New York: Academic Press, 1978.

_____ ; Krashen, Stephen D.; and Ladefoged, Peter. "Maturational Constraints in the Acquisition of Second Language Accent." *Language Sciences* 36 (1975): 20-22.

Selinker, Larry. "Interlanguage." *IRAL* 10 (1972): 209-31.

Shapira, Rina G. "The Non-Learning of English: Case Study of an Adult." In *Second Language Acquisition: A Book of Readings,* edited by Evelyn M. Hatch, pp. 247-55. Rowley, Mass.: Newbury House, 1978.

Siegel, Laurence, and Siegel, Lila Corkland. "A Multivariate Paradigm for Educational Research." *Psychological Bulletin* 68 (1967): 306-26.

Slobin, Dan I. "The Acquisition of Russian as a Native Language." In *The Genesis of Language,* edited by Frank Smith and George A. Miller, pp. 129-52. Cambridge, Mass.: MIT Press, 1966.

Smalley, William A. "Culture Shock, Language Shock, and the Shock of Self-Discovery." *Practical Anthropology* 10 (1963): 49-56.

Smart, John C.; Elton, Charles F.; and Burnett, Collins W. "Underachievers and Overachievers in Intermediate French." *Modern Language Journal* 54 (1970): 415-20.

Smith, David M. "Language as Social Adaptation." *Languages and Linguistics: Working Papers* 4, pp. 61-77. Washington, D.C.: Georgetown University Press, 1972a.

______. "Some Implications for the Social Status of Pidgin Languages." In *Sociolinguistics in Cross-Cultural Analysis,* edited by David M. Smith and Roger W. Shuy, pp. 47-56. Washington, D.C.: Georgetown University Press, 1972b.

Smith, Philip D., Jr. "The Pennsylvania Foreign Language Research Project: Teacher Proficiency and Class Achievement in Two Modern Languages." *Foreign Language Annals* 3 (1969): 194-207.

______. *A Comparison of the Cognitive and Audiolingual Approaches to Foreign Language Instruction.* Philadelphia: Center for Curriculum Development, 1970.

Snow, Catherine E., and Hoefnagel-Hohle, Marian. "Age Differences in Second Language Acquisition." In *Second Language Acquisition: A Book of Readings,* edited by Evelyn M. Hatch, pp. 333-44. Rowley, Mass.: Newbury House, 1978.

Spoerl, D.T. "A Study of Some of the Possible Factors Involved in Foreign Language Learning." *Modern Language Journal* 23 (1939): 428-31.

Spolsky, Bernard. "Attitudinal Aspects of Second Language Learning." *Language Learning* 19 (1969): 271-83.

Srole, L. "Social Dysfunction, Personality and Social Distance Attitudes." Paper read at the American Sociological Society National Meeting, Chicago, 1951.

Stauble, Ann-Marie E. "The Process of Decreolization: A Model for Second Language Development." *Language Learning* 28 (1978): 29-54.

Stern, Hans Heinrich. *Foreign Languages in Primary Education.* London: Oxford University Press, 1967.

______. *Prospectives on Second Language Teaching.* Toronto: Ontario Institute for Studies in Education, 1970.

______. "Optimal Age: Myth or Reality?" *Canadian Modern Language Review* 32 (1967a): 283-94.

______. "The Ottawa-Carleton French Project: Issues, Conclusions and Policy Implications." *Canadian Modern Language Review* 33 (1976b): 216-32, plus commentary, p. 233 ff.

______, and Weinrib, Alice. "Foreign Languages for Younger Children: Trends and Assessment." *Language Teaching and Linguistics Abstracts* 10 (1977): 5-25.

______; Burstall, Clare, and Harley, Birgit. *French from Age Eight, or Eleven?* Toronto: Ontario Institute for Studies in Education, 1975.

______; Swain, Merrill; McLean, L.D.; Friedman, R.J.; Harley, Birgit; and Lapkin, Sharon. *Three Approaches to Teaching French.* Toronto: Ontario Institute for Studies in Education, 1976.

Stevick, Earl W. "Counseling-Learning: A Whole Person Model for Education." *Language Learning* 23 (1973a): 259-71.

______. "A Riddle, with Some Hints for Its Solution." *Action/Peace Corps Program and Training Journal* 1 (1973b): 3-6.

______. *Memory, Meaning and Method.* Rowley, Mass.: Newbury House, 1976.

Taylor, Barry P. "Toward a Theory of Language Acquisition." *Language Learning* 24 (1974): 23-35.

Taylor, Insup. "Acquiring vs. Learning a Second Language." *Canadian Modern Language Review* 34 (1978): 454-72.

Taylor, Linda L.; Catford, John C.; Guiora, Alexander Z.; and Lane, Harlan L. "Psychological Variables and Ability to Pronounce a Second Language." *Language and Speech* 14 (1971): 146-57.

Teitelbaum, Herta; Edwards, Allison; and Hudson, Alan. "Ethnic Attitudes and the Acquisition of Spanish as a Second Language." *Language Learning* 25 (1975): 255-66.

Triandis, Harry C., and Vassiliou, Vasso. "Frequency of Contact and Stereotyping." *Journal of Personality and Social Psychology* 7 (1967): 316-28.

Tucker, G. Richard. "The Linguistic Perspective." In *Linguistics*, Bilingual Education: Current Perspectives, vol. 2, edited by L. Leann Parker, pp. 1-40. Arlington, Va.: Center for Applied Linguistics, 1977.

______ ; Hamayan, Else; and Genesee, Fred H. "Affective, Cognitive and Social Factors in Second-Language Acquisition." *Canadian Modern Language Review* 32 (1976): 214-26.

Upshur, John A. "Four Experiments on the Relation between Language Teaching and Learning. *Language Learning* 18 (1968): 111-24.

______ ; Acton, William; Arthur, Bradford; and Guiora, Alexander Z. "Causation or Correlation: A Reply to Oller and Perkins." *Language Learning* 28 (1978): 99-104.

Wallace, Betty J. "The Importance of Classroom Atmosphere." *Language Learning* 2 (1949): 73-75.

Weinreich, Uriel. *Languages in Contact.* New York: Linguistic Circle of New York, 1953.

Whyte, William F., and Holmberg, Allan R. "Human Problems of U.S. Enterprise in Latin America." *Human Organization* 15, no. 3 (1956), pp. 1-40.

Wilkins, D.A. *Linguistics in Language Teaching.* Cambridge, Mass.: MIT Press, 1972.

Williamson, Vern G. "A Pilot Program in Teaching Spanish: An Intensive Approach." *Modern Language Journal* 52 (1968): 73-78.

Winitz, Harris, and Reeds, James A. "Rapid Acquisition of a Foreign Language (German) by the Avoidance of Speaking." *IRAL* 11 (1973): 295-317.

Wolfe, David E., and Smith, Philip D. "Teacher Education for New Goals." In *Foreign Language Education: A Reappraisal.* ACTFL Review of Foreign Language Education, vol. 4, edited by Dale L. Lange and Charles J. James, pp. 97-126. Skokie, Ill.: National Textbook Company, 1972.

Wolfe, David L. "Some Theoretical Aspects of Language Learning and Language Teaching." *Language Learning* 17 (1967): 173-88.

Wong Fillmore, Lily. "The Second Time Around: Cognitive and Social Strategies in Second Language Acquisition." Ph.D. dissertation, Stanford University, 1976.

Young, Denise I. "The Acquisition of English Syntax by Three Spanish-Speaking Children." M.A.-TESL thesis, University of California, Los Angeles, 1974.

Other titles available from the National Clearinghouse for Bilingual Education:

The Bilingual Education Act features the complete text of Title VII of the Education Amendments of 1978. 18 pp. $1.50.

A Guide to Culture in the Classroom, by Muriel Saville-Troike, is for educators who want to know more about teaching in a cross-cultural classroom. 67 pp. $4.50.

Reading in the Bilingual Classroom: Literacy and Biliteracy, by Kenneth Goodman, Yetta Goodman, and Barbara Flores, focuses primarily on the teaching of reading in the contemporary classroom. 50 pp. $3.50.

Towards Quality in Bilingual Education/Bilingual Education in the Integrated School, by Josué M. Gonzâlez, contains two papers presenting ideas about the current status of bilingual education in this country. 34 pp. $3.50.

Working with the Bilingual Community is an anthology of papers discussing the importance of parent and community involvement in bilingual education programs. 90 pp. $4.50.

The Bilingual Education Act: A Legislative Analysis, by Arnold H. Leibowitz, examines the history and development of the federal legislation. 66 pp. $4.20.

Special Education Needs in Bilingual Programs, by Victoria Bergin, discusses the teaching of limited English proficient students who are physically handicapped or emotionally disturbed. It focuses on the legal and educational developments in the field, current teaching methods, parent and community support, teacher training, program implementation, and materials and resources. 52 pp. $3.00.

Outstanding Dissertations in Bilingual Education is a collection of summaries of dissertations that have been recognized by the National Advisory Council on Bilingual Education. This material is representative of the growing body of diverse scholarship in the field of bilingual education. Two volumes (1979 and 1980) of the series are presently available. $4.85 each.

Describing Bilingual Education Classrooms: The Role of the Teacher in Evaluation, by Andrew D. Cohen, clarifies the types of evaluation applied to bilingual education programs and suggests ways in which teachers can assist evaluators in order to ensure accurate assessment. 52 pp. $3.00.

A Guide to Family Reading in Two Languages: The Preschool Years, by Theodore Andersson, describes how three families successfully helped their children to become biliterate before they entered the formal educational system. The author provides practical ways for parents to encourage young children to read in two languages. These suggestions have implications for many aspects of language development in addition to reading. 81 pp. $1.25.

NATIONAL CLEARINGHOUSE
FOR BILINGUAL EDUCATION